Name : _____( )

Class : Primary 6 _____

CHIJ ST NICHOLAS GIRLS' SCHOOL (PRIMARY)

Primary 6 Mathematics

2014 Continual Assessment One

Paper 1

Booklet A

4 March 2014

15 questions
20 marks

TOTAL TIME FOR BOOKLET A & B : 50 MINUTES

INSTRUCTIONS TO CANDIDATES
DO NOT TURN OVER THIS PAGE UNTIL YOU ARE TOLD TO DO SO.
FOLLOW ALL INSTRUCTIONS CAREFULLY.
ANSWER ALL QUESTIONS.
THE USE OF CALCULATORS IS NOT ALLOWED.

This booklet consists of 7 printed pages including the cover page.

Questions **1** to **10** carry 1 mark each. Questions **11** to **15** carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the correct oval (1, 2, 3, 4) on the Optical Answer Sheet. (20 marks)

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1) Which of the following shows four million, ten thousand, six hundred and two?

(1) 4 001 602 (2) 4 010 602

(3) 4 100 602 (4) 4 100 620

2) The number of participants at the Singapore Marathon last year was about 65 000 when rounded off to the nearest thousand. What could be the actual number of participants?

(1) 64 099 (2) 64 400

(3) 65 490 (4) 65 500

3) What is eight hundredths less than 13.4?

(1) 12.6 (2) 13.32

(3) 13.48 (4) 14.2

4) How many fifths are there in $\frac{6}{15}$?

(1) 6 (2) 2

(3) 3 (4) 9

5) Which of the following is equivalent to $\frac{1}{4}$?

(1) $\frac{1}{4} \times 16$ (2) $\frac{1}{25} \times 100$

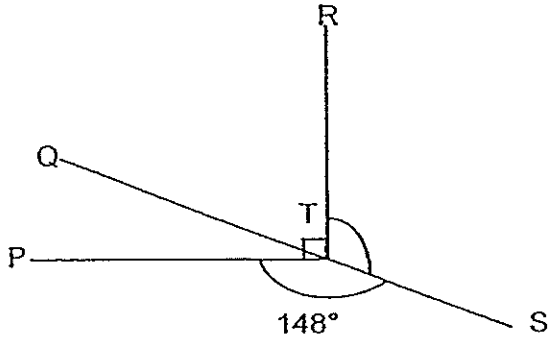
(3) $15 \div 60$ (4) $4 \div 1$

6) Express 7.62 as a percentage.

(1) 762% (2) 76.2%

(3) 7.62% (4) 0.762%

7) The figure below is not drawn to scale.
QTS is a straight line and ∠PTS = 148°. Find ∠RTS.



(1) 32° (2) 122°

(3) 193° (4) 238°

8) There is 4.45 ℓ of water in a container. When 5 ℓ 60 mℓ of water is added into it, how much water is in the container now?

(1) 9.105 ℓ (2) 9.456 ℓ

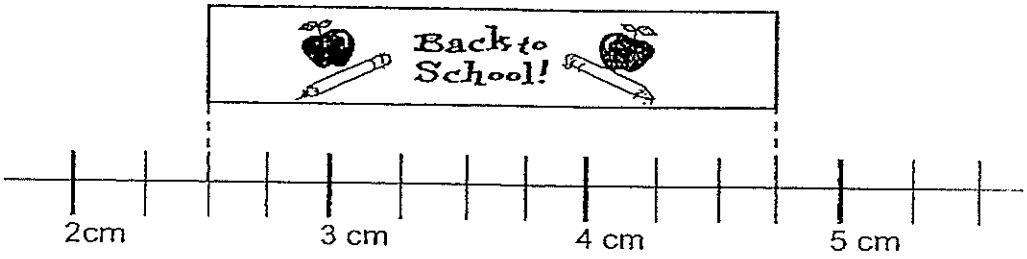
(3) 9.51 ℓ (4) 10.05 ℓ

9) A box contains some yellow and blue tiles. The total number of tiles is $\frac{7}{2}$ of the number of yellow tiles. What is the ratio of the number of yellow tiles to the number of blue tiles?

(1) 2 : 5 (2) 2 : 7

(3) 5 : 2 (4) 7 : 5

10) A bookmark was placed on a ruler as shown below. Find the length of the bookmark.



(1) 2.1 cm (2) 2.25 cm

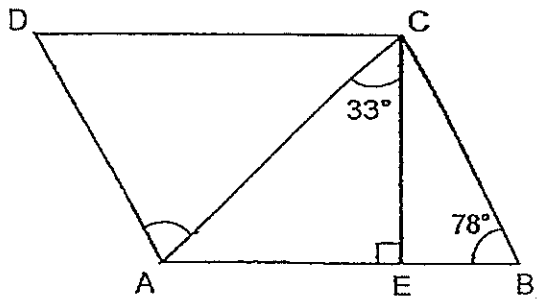
(3) 4.3 cm (4) 4.75 cm

11) The length of a rectangle is 6 cm. The perimeter of the rectangle is $5w$ cm. What is the breadth of the rectangle in terms of w?

(1) $(5w - 6)$ cm (2) $(5w - 12)$ cm

(3) $(\frac{5w-6}{4})$ cm (4) $(\frac{5w-12}{2})$ cm

12) The figure below is not drawn to scale.
ABCD is a parallelogram. Find $\angle CAD$.



(1) 45° (2) 51°

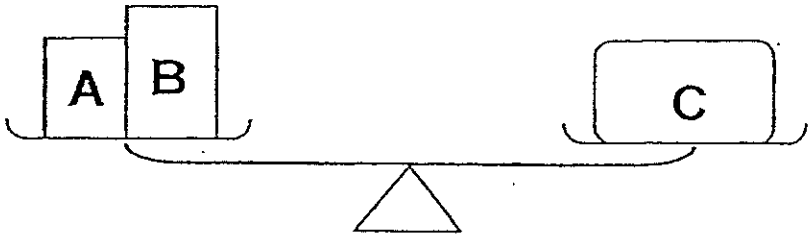
(3) 57° (4) 69°

13) There were 300 children and 450 adults attending a concert. 18% of the audience were men. How many men were there?

(1) 54 (2) 81

(3) 135 (4) 150

14) The figure below shows 3 parcels, A, B and C on a balanced scale. The mass of parcel A is $\frac{3}{4}$ of the mass of parcel B. If the total mass of the 3 parcels is 56 kg, find the mass of parcel A.



(1) 42 kg (2) 21 kg

(3) 18 kg (4) 12 kg

15) Debbie and Ella had some paper clips in the ratio 5 : 9. Ella gave away $\frac{1}{3}$ of her paper clips to a friend and had 72 paper clips left. How many paper clips did the girls have at first?

(1) 112 (2) 168

(3) 324 (4) 504

End of Booklet A

Name : _____ ( )

Class : Primary 6 _____

CHIJ ST NICHOLAS GIRLS' SCHOOL (PRIMARY)

Primary 6 Mathematics

2014 Continual Assessment One

Paper 1

Booklet B

4 March 2014

15 questions
20 marks

TOTAL TIME FOR BOOKLET A & B : 50 MINUTES

INSTRUCTIONS TO CANDIDATES
DO NOT TURN OVER THIS PAGE UNTIL YOU ARE TOLD TO DO SO.
FOLLOW ALL INSTRUCTIONS CAREFULLY.
ANSWER ALL QUESTIONS.
THE USE OF CALCULATORS IS NOT ALLOWED.

This booklet consists of 8 printed pages including the cover page.

Questions **16** to **25** carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

Do not write in this space.

16) Simplify $18 + 5h - 4 + 9h - 4h$.

Ans:_____

17) Express 2870 cm in metres.

Ans :_____ m

18) Find the value of $36.18 \div 90$

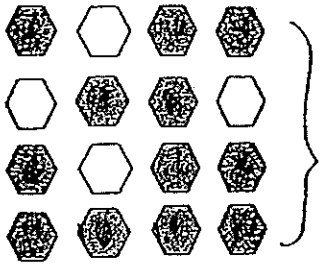
Ans : _____

19) Mrs Lee bought $\frac{3}{4}$ kg of salt. She used $\frac{1}{9}$ of it to season some meat. How much salt did she have left?

Ans: _____ kg

Do not write in this space.

20) What percentage of the shapes below is shaded?



Ans: _____ %

21) The number shown below is a 4-digit number. It is a multiple of 4. What is the biggest possible digit in the box?

2	4	3	?

Ans: _____

22) In a fruit basket, the ratio of the number of apples to the number of pears to the number of oranges is 2 : 5 : 4. What fraction of the number of pears is the total number of apples and oranges?

Do not write in this space.

Ans : _____

23) How many pails, each of capacity $\frac{1}{12}\ \ell$, are needed to fill a tank with $\frac{5}{6}\ \ell$ of water?

Ans : _____

24) The Dance Club and the Guitar Club had an equal number of members. If $\frac{2}{9}$ of the Guitar Club members joined the Dance Club, what is the new ratio of the number of Dance Club members to the number of Guitar Club members?

Ans: _____

25) Rosella is n years old and she is thrice as old as Jay. How old will Jay be in 4 years' time? Leave your answer in terms of n.

Do not write in this space.

Ans: _____

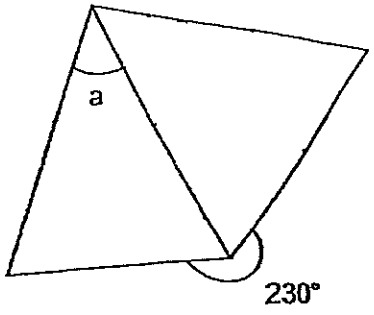
Questions 26 to 30 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

Do not write in this space.

26) A group of 16 pupils shared a box of markers equally. 4 of them gave all their markers to the rest of the pupils. As a result, the rest of the pupils received 2 more markers each. How many markers were in the box at first?

Ans : _____

27) The figure below, not drawn to scale, shows an equilateral triangle and an isosceles triangle. Find $\angle a$.



Ans : _____ °

Do not write in this space.

28) The opening hours of Yummy Café is shown in the table below.

Openig Hours (Daily)
Lunch : 11.00 a.m. to 2.30 p.m.
Dinner : 4.00 p.m. to 10.45 p.m.

How long is Yummy Café open each day?

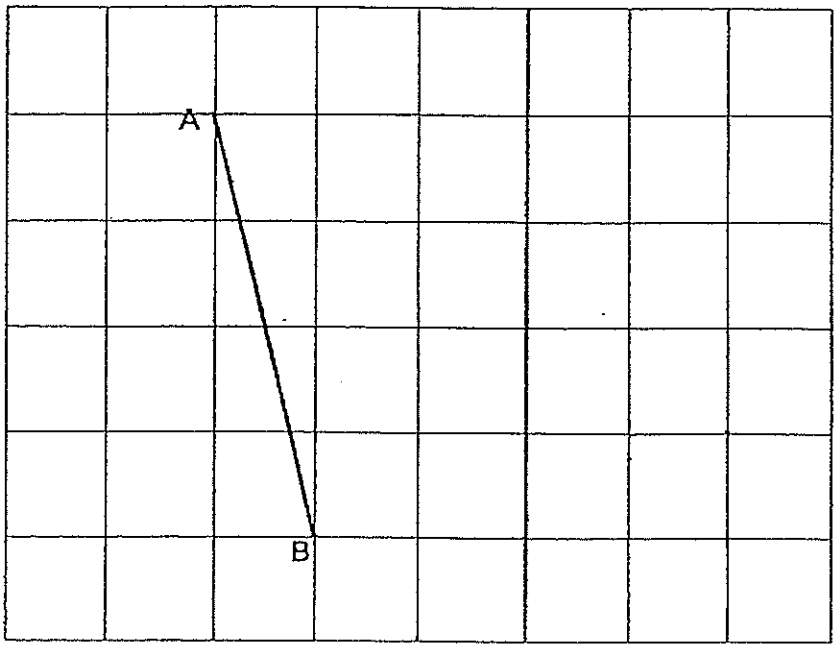
Ans : _____ h _____min

29) Selina started saving money on a Wednesday with $3. She saved $3 every day since then. On which day of the week would she have saved $93?

Ans : _____

30) AB is the side of a right-angled triangle ABC. Complete the triangle in the square grid below such that $\angle ABC = 90°$ and BC = 6 cm.

Do not write in this space.



End of Paper 1

Name : _____

Class : Primary 6 _____

CHIJ ST NICHOLAS GIRLS' SCHOOL(PRIMARY)

Primary 6 Mathematics

2014 Continual Assessment One

Paper 2
4 March 2014

Paper 1	40
Paper 2	60
Total	100

18 QUESTIONS
60 MARKS

TOTAL TIME FOR PAPER 2 : 1 HOUR 40 MINUTES

INSTRUCTIONS TO CANDIDATES
Do not turn over this page until you are told to do so.
Follow all instructions carefully.
Answer all questions.
The use of an approved calculator is expected, where appropriate.

This booklet consists of 16 printed pages including the cover page.

Questions 1 to 5 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

Do not write in this space.

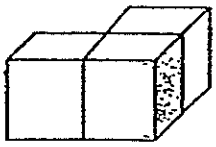
1. Mdm Rose used $1\frac{5}{6}$ m of cloth to make a bolster case and $1\frac{3}{4}$ m of cloth to make a pillow case. Altogether she made 7 bolster cases and 2 fewer pillow cases than bolster cases. What was the total length of cloth she used in all?

Ans: _____ m [2]

2. An electrical store gave away 2 discount coupons for every customer who made a purchase of \$88. Mr Seeto received a total of 56 discount coupons. What was the minimum purchase he had made at the store?

Ans: \$ _____ [2]

3. The solid figure below is made up of identical cubes. The area of the shaded face is 169 cm^2. What is the volume of the solid figure?



Ans: _____ cm^3 [2]

4. Mirah and Kaylee bought a gift for $160. They had to pay 7% GST for the gift. How much would each of them have to pay if they were to share the total cost of the gift equally?

Ans: $ _____ [2]

Do not write in this space.

5. Aunt Mala wanted to buy 8 m of lace but was short of $7.50. Then she bought 5 m of lace and had $3 left. Find the cost of 1 m of lace.

Do not write in this space

Ans: $ _____ [2]

For questions 6 to 18, show your working clearly in the space provided for each question and write your answers in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question. **[50 marks]**

Do not write in this space.

6. In the space below, draw a rhombus WXYZ in which $\angle WXY = 74°$.
The line XY has been drawn for you.

X 6 cm Y

[3]

7 A pair of jeans cost \$$p$. A T-shirt cost \$20 less than the pair of jeans.

(a) Owen bought 2 pairs of jeans and 1 T-shirt. How much did Owen pay in terms of p?

(b) If $p = 98$, find the total amount Owen paid.

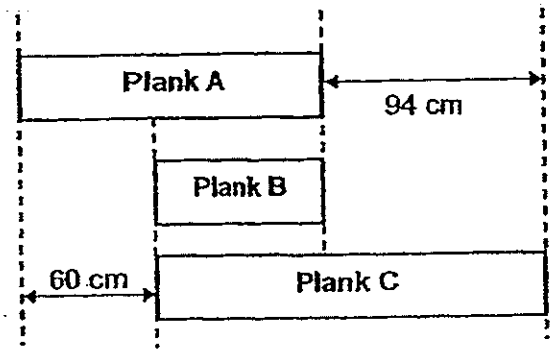
Do not write in this space.

Ans: a) _____ [2]

b) _____ [1]

8. The figures below show 3 wooden planks. The total length of the 3 wooden planks is 4.5 m. Find the length of plank B in cm. Leave your answer correct to 2 decimal places.

Do not write in this space.



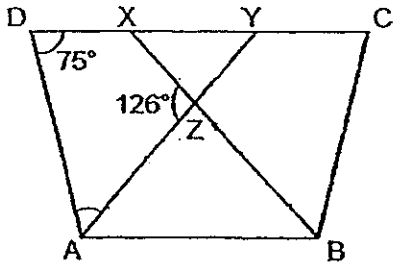
Ans: _____ [3]

9. There were 24 more nails than screws in a tool box. After the carpenter added 52 screws and 10 nails, there were 390 nails and screws in the tool box altogether. How many screws were in the tool box in the end?

Do not write in this space

Ans: _____ [3]

10. In the figure below, ABCD is a trapezium. AZB is an isosceles triangle with AZ = BZ. AY and BX are straight lines. Find ∠DAZ.



Ans: _____ [3]

11 Mr Song had 76 kg of peanuts. He sold $\frac{2}{5}$ of the peanuts on Monday and $\frac{4}{15}$ of the peanuts on Tuesday. He packed the remaining peanuts into small bags each containing $\frac{5}{11}$ kg of peanuts.

a) How many small bags of peanuts did Mr Song pack?

b) What is the mass of the peanuts left after packing into the small bags?

Do not write in this space

Ans: a) _____ [2]

b) _____ [2]

12. Miss Ng prepared some bags of cubes for an activity in her class. She tried placing 12 bags of cubes on each table but found that the last table had only 1 bag of cubes. If she placed 8 bags of cubes on each table, she would have 33 bags of cubes left. How many bags of cubes did she have?

Do not write in this space.

Ans: _____ [4]

13. The mass of a packet of jelly beans is $\frac{1}{6}$ of the mass of a bottle of oil. The mass of a bag of rice is thrice that of the mass of the bottle of oil. Given that the mass of the bag of rice is 1080 g more than the mass of the bottle of oil, what is the total mass of the 3 items?

Do not write in this space.

Ans: _____ [4]

14. A rectangular container measuring 26 cm by 35 cm by 12 cm is completely filled with water. Water from the container is poured into an empty cubical tank of edge 18 cm until the cubical tank is half-filled. How many litres of water are left in the container?

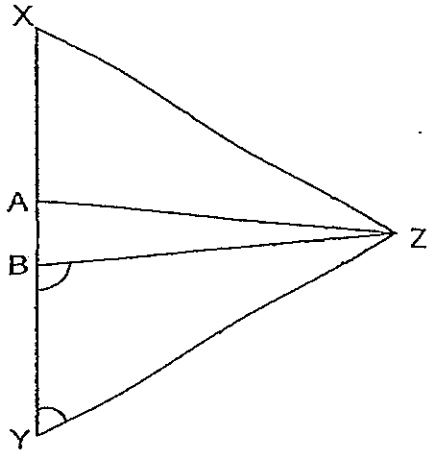
Do not write in this space.

Ans: _____ [4]

15. The figure below is not drawn to scale. Triangle XYZ is an equilateral triangle. Triangle ABZ is an isosceles triangle. $\angle$ AZB is $\frac{1}{5}$ of $\angle$ XYZ. $\angle AZX = \angle BZY$.

a) Find $\angle$ AZX.

b) Find $\angle$ YBZ.



Do not write in this space.

Ans: a) _____ [2]

b) _____ [2]

16. At Sinora Shoes Store, the usual price of a pair of sandals was $79.50. Emiko bought a pair at a discount of 20%.

a) How much did she save from buying the pair of sandals at a discount?

b) If Emiko used her membership card, she would receive another 5% discount on the discounted price. How much did she have to pay for the pair of sandals in the end?

Do not write in this space.

Ans : a) _____ [1]

b) _____ [4]

17. Tickets for a Girl Band concert were sold at \$128 and \$228. All tickets for the concert were completely sold. The amount collected for the \$228 tickets was \$109 440. Given that the number of \$228 tickets was $\frac{3}{8}$ of the number of \$128 tickets, what was the amount collected from the sales of all the tickets?

Do not write in this space.

Ans: _____ [5]

18. A box filled with 40 magazines has a mass of 10.94 kg. The same box when filled with 25 notebooks has a mass of 3 kg 680 g. The mass of one magazine is twice the mass of one notebook. Find the mass of the box when it is empty.

Do not write in this space.

Ans: _____ [5]

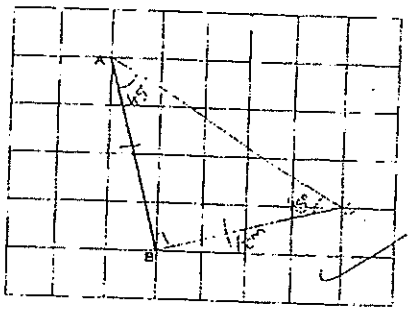
End of Paper 2

EXAM PAPER 2014

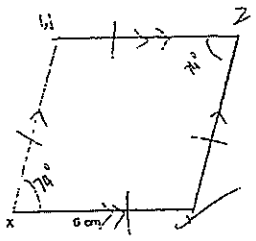
LEVEL : PRIMARY 6
SCHOOL : ST. NICHOLAS
SUBJECT : MATHS
TERM : CA1

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
2	3	2	2	3	1	2	3	1	2	4	1	2	4	2

Q16 14 + 10h
Q17 28.7m
Q18 0.402
Q19 $\frac{2}{3}$
Q20 75%
Q21 6
Q22 $\frac{6}{5}$
Q23 10
Q24 11:7
Q25 $(\frac{n}{3} + 4)$
Q26 96 marbles
Q27 40°
Q28 10h 15min
Q29 Friday
Q30



PAPER 2

Q1		7 -2 = 5 $(1\frac{5}{6}$ m x 7) + $(1\frac{3}{4}$m x 5) = $21\frac{7}{12}$m
Q2		56 ÷ 2 = 28 28 x \$88 = \$2464
Q3		$\sqrt{169}$ = 13 13 x 13 x 13 = 2197 2197 x 3 = 6591
Q4		\$106 x 107% = \$171.20 \$171.20 ÷ 2 = \$85.60
Q5		Cost of 5m of cloth + \$3 = Cost of 8m of cloth -\$7.50 Cost of 3m of cloth → \$10.50 Cost of 1m of cloth → \$3.50
Q6		
Q7		Jeans → \$p t-shirt → \$p - \$20
	(a)	\$(3p -20)
	(b)	If p = 98 \$(3x98 -20) = \$274
Q8		4.5m ⇒ 450cm 450cm −94cm−60cm=296cm 296cm ÷ 3 ≈ 98.67cm
Q9		390 − 52 −10 = 328 Scores (B) (328 − 24)÷2 = 152 Scores (A) 152 + 52 = 204

Q10		$360° - 126° - 126° = 108°$ $108° \div 2 = 54°$ $180° - 54° = 126°$ $126° \div 2 = 63$ $180° - 75° = 105°$ $105° - 63° = 42°$
Q11	(a)	$1 - \frac{2}{5} - \frac{4}{15} = \frac{1}{3}$ $\frac{1}{3}$ X 76 kg = $25\frac{1}{3}$kg $25\frac{1}{3} \div \frac{5}{11} = 55\frac{11}{15}$ ≈ 55.7333 ≈ 55
	(b)	$55 \times \frac{5}{11}$ kg = 25kg $25\frac{1}{3}$kg – 25kg = $\frac{1}{3}$ kg
Q12		$12 - 1 = 11$ $33 + 11 = 44$ $12 - 8 = 4$ $44 \div 4 = 11$ $11 \times 12 = 132$ $132 - 11 = 121$
Q13		$1080g \div 2 = 540g$ $540g \times \frac{1}{6} = 90g$ $1080g + 540 \times 2 + 90g = 2250g$
Q14		$26cm \times 35cm \times 12cm = 10920cm^3$ $18cm \times 18cm \times 18cm = 5832cm^3$ $5832cm^3 \div 2 = 2916cm^3$ $10920cm^3 - 2916cm^3 = 8004cm^3$ $= 8.004l$
Q15	(a)	$60° \times \frac{1}{5} = 12°$ $60° - 12° = 48°$ $48° \div 2 = 24°$
	(b)	$180° - 24° - 60° = 96°$
Q16	(a)	\$17.50 x 20% = \$15.90
	(b)	\$79.50 - \$15.90 = \$63.60 100% - 5% = 95% \$63.60 x 95% = \$60.42

Q17		\$109 440 ÷ \$228 = 480 480 ÷ $\frac{3}{8}$ = 1280 1280 × \$128 = \$163 840 \$163 840 + \$109 440 = \$273 280
Q18		40 × 2 = 80 80 − 25 = 55 3kg 680g ⇒ 3.68kg 10.94kg − 3.68kg = 7.26kg 7.261kg ÷ 55 = 0.132 kg 0.132 kg × 25 = 3.3kg 3.68kg − 3.3kg = 0.38kg

METHODIST GIRLS' SCHOOL

Founded in 1887

PRIMARY 6 CONTINUAL ASSESSMENT 2014
MATHEMATICS

PAPER 1
(BOOKLET A)

Total Time for Booklets A and B: 50 minutes

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.
Follow all instructions carefully.
Answer all questions.
Shade your answers in the Optical Answer Sheet (OAS) Provided.
The use of calculators is **NOT** allowed.

Name: _____ ( )

Class: Primary 6._____

Date: 4 March 2014

This booklet consists of 7 printed pages including this page.

Questions **1** to **10** carry 1 mark each. Questions **11** to **15** carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet.

(20 marks)

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1. What does the digit 8 stand for in 5 068 134?

   (1) 8 tens
   (2) 80 tens
   (3) 800 tens
   (4) 8 000 tens

2. Simplify $12 + 7m - 8 - 4m$

   (1) $4 + 3m$
   (2) $4 - 11m$
   (3) $8 - 3m$
   (4) $20 + 11m$

3. 30 books cost \$p. What is the expression for the cost of 2 such books? Express your answer in terms of p.

   (1) $\$(\frac{30}{p} \times 2)$
   (2) $\$(30p \times \frac{1}{2})$
   (3) $\$(\frac{p}{30} \times 2)$
   (4) $\$(\frac{1}{30p} \times 2)$

(Go on to the next page)

4. Find the value of $5 \div \frac{3}{8}$

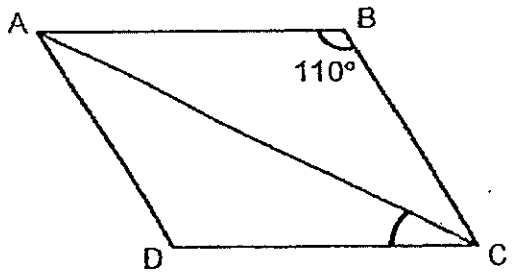
(1) $\frac{3}{40}$

(2) $1\frac{7}{8}$

(3) $5\frac{3}{8}$

(4) $13\frac{1}{3}$

5. ABCD is a rhombus $\angle ABC = 110°$. Find $\angle ACD$.



(1) 35°

(2) 40°

(3) 55°

(4) 70°

6. Li Ming has $\frac{4}{5}$ as many stickers as Yee Mun. What is the ratio of the total number of stickers they have to the number of stickers Yee Mun has?

(1) 4 : 9

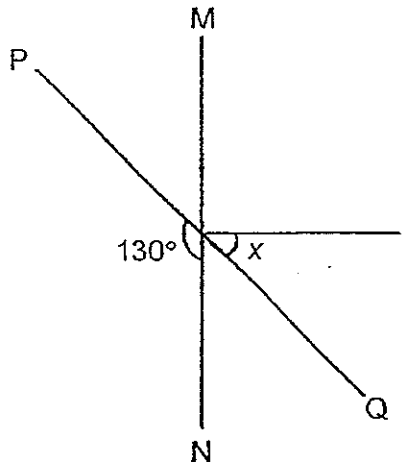
(2) 5 : 9

(3) 9 : 5

(4) 14 : 9

(Go on to the next page)

7. MN and PQ are straight lines. Find $\angle x$.



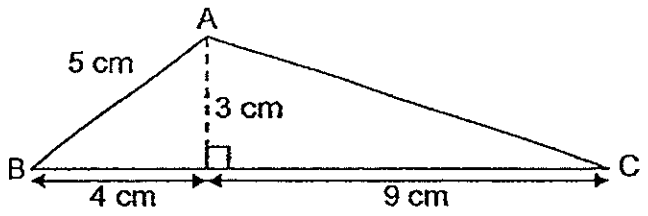
(1) 30°

(2) 40°

(3) 45°

(4) 50°

8. What is the area of triangle ABC in the figure?



(1) 13.5 cm^2

(2) 19.5 cm^2

(3) 22.5 cm^2

(4) 32.5 cm^2

(Go on to the next page)

9. What is the missing number in the box?

$45 : 18 = 10 : \square$

(1) 5
(2) 2
(3) 9
(4) 4

10. Ribbon A is 12 m long. The total length of Ribbon B and Ribbon C is 12 m long. What is the average length of the 3 ribbons?

(1) 12 m
(2) 8 m
(3) 6 m
(4) 4 m

11. The mass of a box with 40 identical screws is 700 g. When 10 more screws were added into the box, the mass of the box and the screws became 850 g. What is the mass of each screw in grams?

(1) 14
(2) 15
(3) 17.5
(4) 21.25

(Go on to the next page)

12. The table below shows the savings of Siti over 4 weeks.

Week	Savings
1	$120
2	?
3	$170
4	$150

The average savings for the 4 weeks was $160.
How much did she save in Week 2?

(1) $200

(2) $220

(3) $300

(4) $320

13. A number X is 20% less than another number Y.
If Y = 150, what is the value of X?

(1) 30

(2) 96

(3) 120

(4) 125

14. The ratio of the length of a rectangle to the breadth of the rectangle is 7 : 4. How much longer is the length of the rectangle than the breadth of the rectangle if the perimeter of the rectangle is 132 cm?

(1) 18 cm

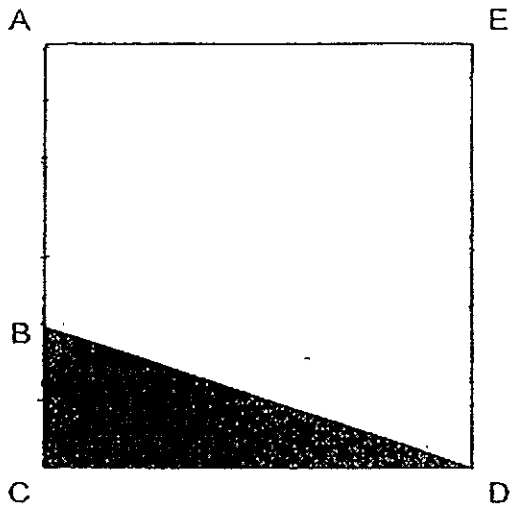
(2) 22 cm

(3) 36 cm

(4) 44 cm

(Go on to the next page)

15. In the figure below, ACDE is a square. The length of BC is $\frac{1}{3}$ of the length of CD. What fraction of the figure is **not** shaded?



(1) $\frac{1}{9}$

(2) $\frac{1}{6}$

(3) $\frac{5}{6}$

(4) $\frac{2}{3}$

(Go on to Booklet B)

METHODIST GIRLS' SCHOOL

Founded in 1887

PRIMARY 6 CONTINUAL ASSESSMENT 2014

MATHEMATICS

PAPER 1
(BOOKLET B)

Total Time for Booklets A and B: 50 minutes

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.
Follow all instructions carefully.
Answer all questions.
Write your answers in this booklet.
The use of calculators is **NOT** allowed.

Name: _____ ( )

Class: Primary 6._____

Date: 4 March 2014

Paper 1 Booklet A	**/ 20**
Paper 1 Booklet B	**/ 20**
Paper 2	**/ 60**
TOTAL	**/ 100**

This booklet consists of 7 printed pages including this page.

Questions **16** to **25** carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(10 marks)

---

16. 2 hundreds + 20 tenths + 20 hundredths is _____.

Ans: _____

17. Mrs Chan bought 1 kg 500 g of flour. She used some flour to bake 48 muffins. For every 12 muffins, she used 200 g of flour. How much flour was left?

Ans: _____kg

18. Find the value of 21.84 ÷ 8.

Ans: _____

19. Express 2.08 as a percentage.

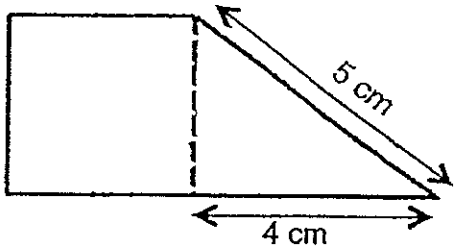
Ans: _____%

(Go on to the next page)

20. The ratio of the number of pears to the number of oranges is 7 : 2. Express the number of oranges as a fraction of the total number of pears and oranges.

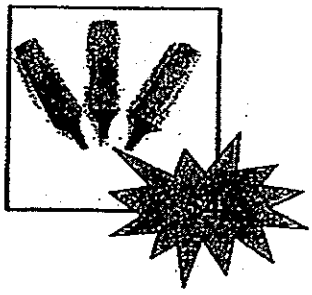
Ans: _____

21. The figure below is made up of a square and a triangle. The perimeter of the figure is 18 cm. Find the area of the triangle.



Ans: _____ cm^2

22. Highlighters are sold in packets of 3 highlighters. Each packet is sold at $4. John has $30. What is the maximum number of highlighters that he can buy?



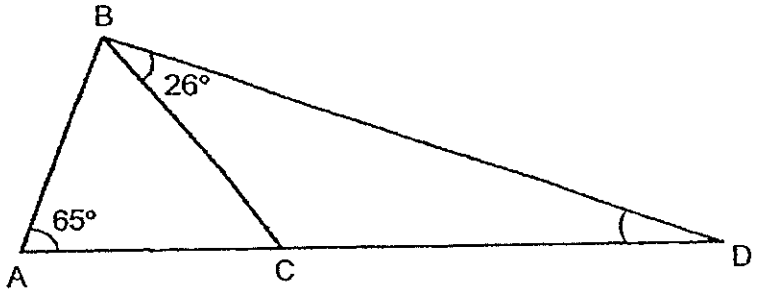
Ans: _____

(Go on to the next page)

23. 1 742 849 people visited the zoo in 2013. Round off the number of visitors to the nearst thousand.

Ans: _____

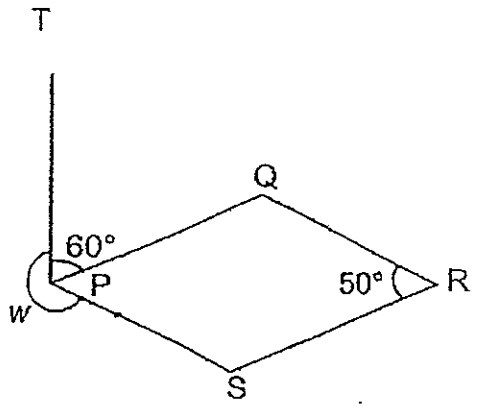
24. In the figure below, ACD is a straight line. ABC is an isosceles triangle, $AC = BC$, $\angle BAC = 65°$, $\angle CBD = 26°$. Find $\angle CDB$.



Ans: _____ °

(Go on to the next page)

25. In the figure below, PQRS is a parallelogram, $\angle QRS = 50°$ and $\angle TPQ = 60°$. Find $\angle w$.



Ans: _____ °

Questions **26** to **30** carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(10 marks)

---

26. Andy had some marbles. 20% of them are blue and the rest are yellow. He gave away half of his blue marbles and 25% of his yellow marbles. What percentage of his marbles were left?

Ans: _____%

27. Jean and Peter had some sweets in the ratio 7 : 5. After Jean gave away 26 sweets, the ratio became 3 : 4. How many sweets did they have altogether at first?

Ans: _____

28. The total height of Ali and John is Ym. Ali is 5 cm shorter than John. Express John's height in terms of Y.

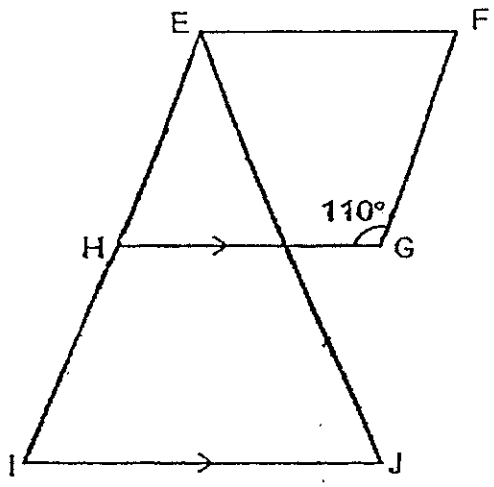
Ans. _____cm

(Go on to the next page)

29. The ratio of the number of pupils in Class A to the number of pupils in Class B is 5 : 3. 60% of the pupils in Class A wear spectacles while $\frac{1}{3}$ of the pupils in Class B do not wear spectacles. Find the ratio of the number of pupils in Class A who wear spectacles to the number of pupils in Class B who wear spectacles.

Ans: _____

30. EFGH is a rhombus and EIJ is an isosceles triangle. HG is parallel to IJ, EI = EJ and ∠FGH = 110°. Find ∠IEJ.



Ans: _____°

End of Booklet B.

METHODIST GIRLS' SCHOOL

Founded in 1887

PRIMARY 6 CONTINUAL ASSESSMENT 2014
MATHEMATICS

PAPER 2

Total Time: 1 h 40 min

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.
Follow all instructions carefully.
Answer all questions.
Write your answers in this booklet.
The use of an approved calculator is expected, where appropriate.

Name: _____ ( )

Class: Primary 6._____

Date: 4 March 2014

60

This booklet consists of 15 printed pages including this page.

Questions 1 to 5 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

---

1 Sam bought 40 pencils at $4y and 10 erasers at 90 cents each. He paid the cashier $30 for all the pencils and erasers. How much change did he receive?

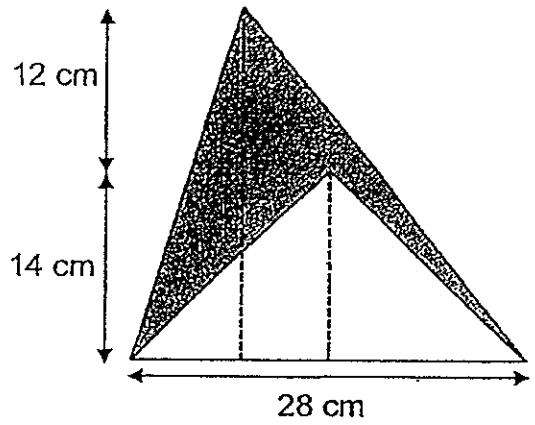
Ans: $_____

2. The ratio of the number of books Anne had to the number of books Shannon had was 2 : 3. After Anne gave away 5 of her books, Shannon had twice as many books as Anne. How many books did Anne have at first?

Ans: _____

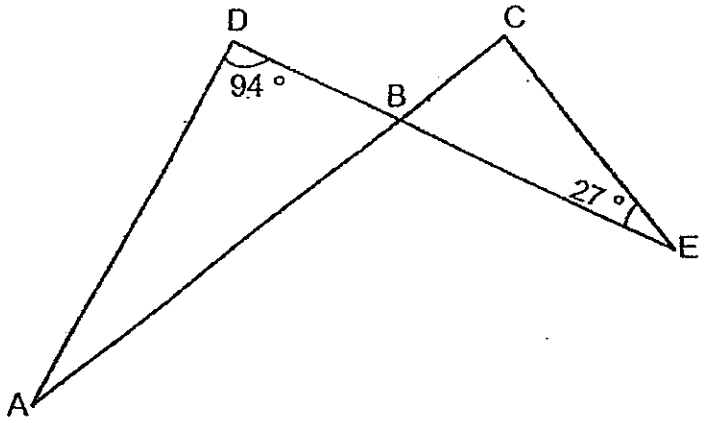
(Go on to the next page)

3. Find the area of the shaded part in the figure below.



Ans: _____ cm^2

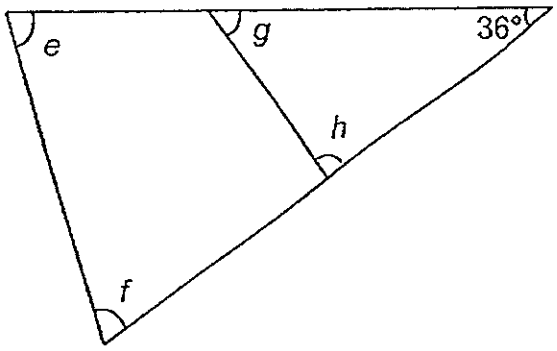
4. In the figure below, ABC and DBE are straight lines.
$\angle ADB = 94°$, $\angle BCE = 90°$ and $\angle BEC = 27°$. Find $\angle DAB$.



Ans: _____ °

(Go on to the next page)

5. In the figure below, find the sum of $\angle e$, $\angle f$, $\angle g$ and $\angle h$.



Ans: _____ °

(Go on to the next page)

For questions **6** to **18**, show your working clearly and write your answers in the space provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question.

(50 marks)

---

6. $\frac{5}{8}$ of the animals on a farm are goats. $\frac{4}{9}$ of the remaining animals are sheep and the rest are cows. Express the ratio of the number of goats to the number of sheep to the number of cows on the farm.

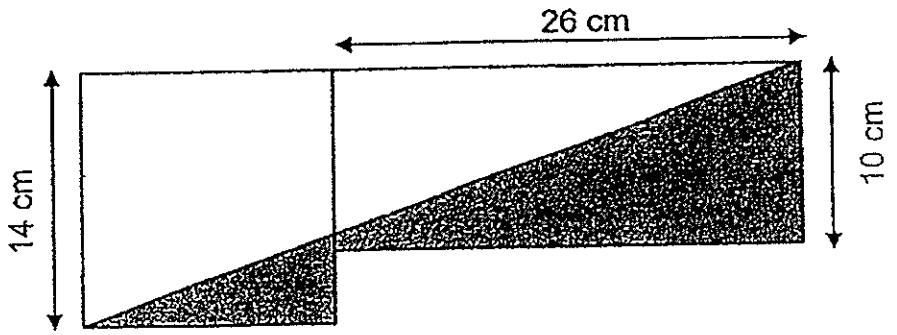
Ans: _____ [3]

7. Miss Lim wants to distribute a packet of sweets to her pupils. If she gives 4 sweets to each pupil, she will have 8 sweets left. If she gives 6 sweets to each pupil, she will be short of 68 sweets. How many pupils are there in the class?

Ans: _____ [3]

(Go on to the next page)

8. The figure below is made up of a rectangle and a square.
What is the ratio of the area of the shaded part to the area of the unshaded part?



Ans: _____ [3]

(Go on to the next page)

9. 4 different odd numbers, each greater than 33, have an average of 50. Given that the sum of 2 numbers is 108, what is the largest possible value of one of the remaining 2 numbers?

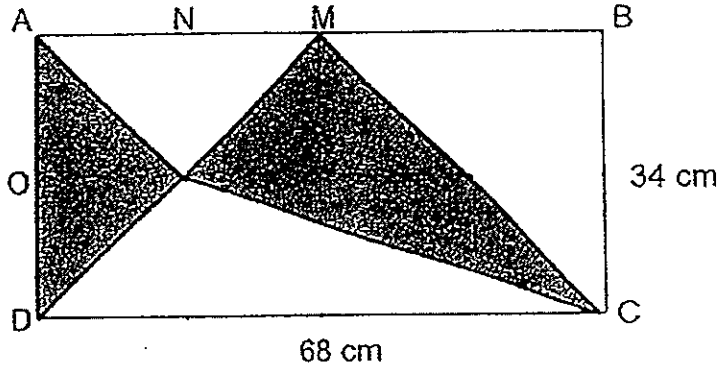
Ans: _____ [3]

10. During Chinese New Year, Mrs Lim used 145 $2 notes to pack red packets. Each red packet contained a value of either $4 or $6. After packing, she counted all the red packets and found that she had 60 red packets. Find the number of red packets that contained $4.

Ans: _____ [4]

(Go on to the next page)

11. The figure below shows a rectangle ABCD. M is the mid-point of AB, N is the mid-point of AM and O is the mid-point of AD. Find the shaded area.



Ans: _____ [3]

(Go on to the next page)

12 Ashley is $8a$ years old. She is 6 years younger than her sister but 33 years younger than her mother.

(a) How old will her sister be in 4 years' time?
Give your answer in terms of a.

(b) If $a = 3$, what is the total age of Ashley and her mother in 4 years' time?

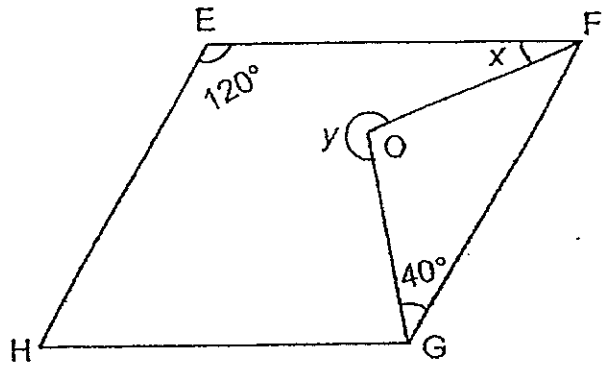
Ans: (a)_____ [2]

(b)_____ [2]

(Go on to the next page)

13. In the figure below, EFGH is a parallelogram and $\angle FEH = 120°$.
FOG is an isosceles triangle with OF = OG and $\angle OGF = 40°$.
(a) Find $\angle x$.

(b) Find $\angle y$.



Ans: (a) _____ [2]

(b) _____ [2]

(Go on to the next page)

14. There were 1250 adults in a train at the start of the journey.
40% of the adults were men. At the next train station, some adults boarded the train and then the number of men became $\frac{4}{11}$ of the total number of adults. There were twice as many women as men that boarded the train.

(a) How many women boarded the train?

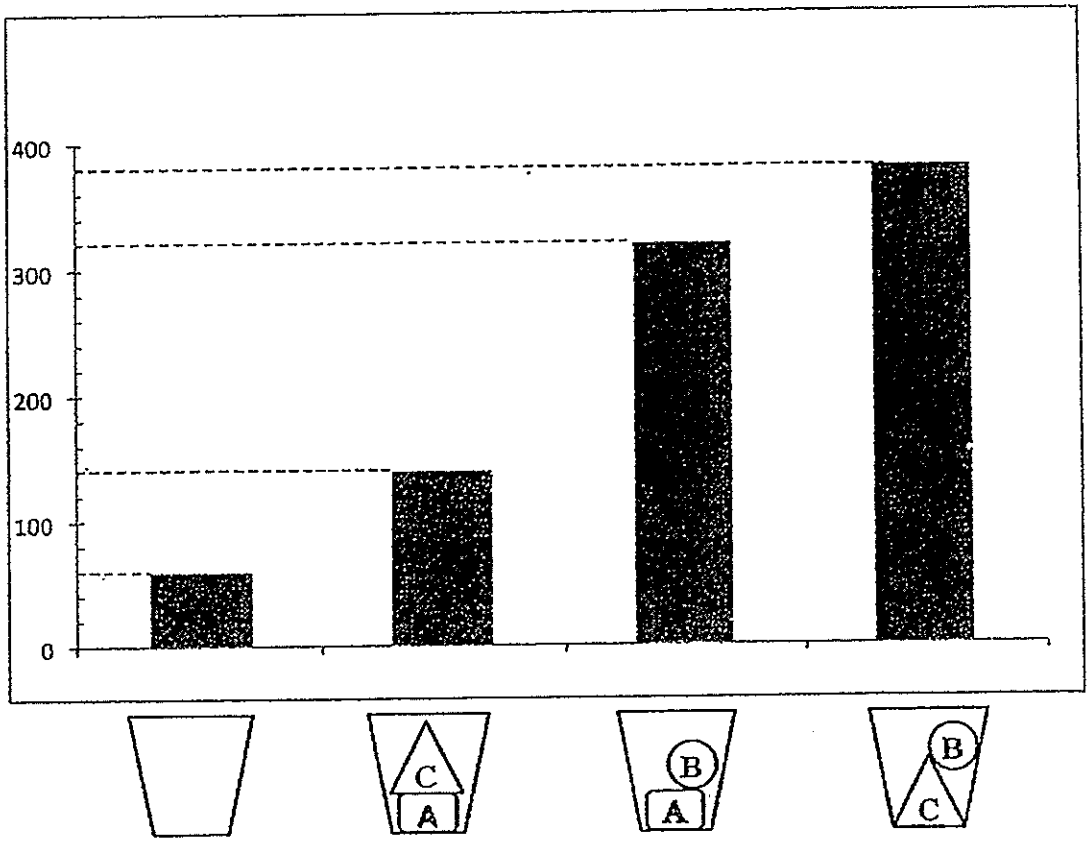
(b) How many adults were there in the train in the end?

Ans: (a)_____ [3]

(b)_____ [1]

(Go on to the next page)

15. The graph below shows the mass of a jug when empty and when different combinations of objects A, B and C are placed in the ~~cup.~~ jug
What is the ratio of the mass of object A to the mass of object C?



Ans: _____ [4]

(Go on to the next page)

16. Dinesh had some fiction and non-fiction books. The number of fiction books was $\frac{4}{9}$ of the total number of books he had. After he had donated 80 fiction books and 25 non-fiction books, there were 20% as many fiction books as non-fiction books. Find the total number of books Dinesh had at first.

Ans: _____ [5]

(Go on to the next page)

17. Mrs Raja bought some butter cakes and chocolate cakes for a party. She bought 4 more butter cakes than chocolate cakes. Each butter cake cost $12 and each chocolate cake cost $6 more than a butter cake. She spent $378 on all the cakes. How many cakes did Mrs Raja buy altogether?

Ans: _____ [5]

(Go on to the next page)

18. Betty had 25% as many red buttons as blue buttons. For every dress she made, $\frac{3}{8}$ of the buttons used were red and the rest were blue.
She used up all her red buttons to make the dresses. She had 28 blue buttons left.

(a) How many red buttons did she have at first?

(b) How many dresses did she make?

Ans: (a)_____ [3]

(b)_____ [2]

End of Paper

Exam Paper 2014 Answer Sheet

School: METHODIST GIRLS' SCHOOL
Subject: PRIMARY 6 MATHEMATICS
Term: CA1

Paper 1

1)	3	6)	3	11)	2
2)	1	7)	2	12)	1
3)	3	8)	2	13)	3
4)	4	9)	4	14)	1
5)	1	10)	2	15)	3

16. 202.20

17. 0.7

18. 2.73

19. 208

20. $^{2}/_{9}$

21. 6

22. 21

23. 1743000

24. 24

25. 250

26. **70**

27. **96**

28. **($^{100y + 5}/_{2}$)**

29. **3 : 2**

30. Angle EHG → 180 – 110 = 70
    Angle IEJ → 180 – (70 x 2) = **40**

Paper 2

1. \$30 - \$4y - \$9 = **\$(21 - 4y)**

2. A : S
   2 : 3
   1 : 2
   4 : 6
   3 : 6
   1u → 5
   4u → **20 books**

3. A → $^1/_2$ x 28 x 26 = 364cm^2
   B → $^1/_2$ x 28 x 14 = 196 cm^2
   364 – 196 = **168cm^2**

4. Angle CBE → 180 – 27 – 90 = 63°
   Angle DAB → 180 – 63 – 94 = **23°**

5. Angle g + Angle h → 180 – 36 = 144°
   Angle e + Angle p → 180 – 36 = 144°
   Angle g + Angle h + Angle e + Angle f → 144 + 144 = 288°

6. $^5/_8$ goats = $^{15}/_{24}$ goats
   $^4/_9$ x $^3/_8$ = $^1/_6$ = $^4/_{24}$ sheeps
   $^5/_9$ x $^3/_8$ = $^5/_{24}$ cows
   G : S : C
   15 : 4 : 5

7. No. of pupils: X
   (X x 4) + 8 = (X x 6) – 68
   4X + 8 = 6X – 68
   76 = 2X
   X = **38 pupils**

8. 26 + 14 = 40cm
   10 x 26 = 260cm^2
   14 x 14 = 196cm^2
   260 + 196 = 456cm^2
   $^1/_2$ x 40 x 14 = 280cm^2
   456 – 280 = 176cm^2
   S : NS
   176 : 280
   22 : 35

9. 50 x 4 = 200
   200 – 108 = 92
   92 ÷ 2 = 46
   45, 43, 41, 37, 35
   47, 49, 51, 55, **57**

10.

No. of $4	No. of $6	Total amt of money ($4)	Total amt of money ($6)	Total amt ($4, $6)
25	35	$100	$210	$310 (wrong)
35	25	$140	$150	$290 (correct)

$2 x 145 = $290
Answer: **35 red packets**

11. 34 ÷ 2 = 17
A → $^1/_2$ x 68 x 17 = 578cm^2
68 ÷ 2 = 34cm
B → $^1/_2$ x 34 x 34 = 578cm^2
C → $^1/_2$ x 17 x 34 = 289cm^2
68 x 34 = 2312 cm^2
2312 – 578 – 578 – 289 = **867cm^2**

12. (a) 8a + 6 + 4 = **8a + 10**
(b) 8 x 3 = 24
24 + 33 = 57
57 + 24 + 8 = **89 years old**

13. (a) Angle X → 180 – 120 – 40 = 20°
40 x 2 = **80°**
(b) Angle Y → 360 – (180 – 80) = **260°**

14. (a) M : W
40 : 60
2 : 3
4 : 7
1250 ÷ 5 = 250
250 x 4 = **1000 women**
(b) 250 x 11 = **2750 adults**

15. A + C = 140
A + B = 320
C + B = 380
140 + 320 + 380 = 840
840 – (60 x 3) = 660
660 ÷ 2 = 330 (A + B + C)
330 – (380 – 60) = 10 (A)
330 – (320 – 60) = 70 (B)
A : C
10 : 70
1 : 7

16. F : NF
4u : 5u
-80 -25
1p 5p

F : NF
20u : 5u
-400 -25
5p 5p

20u – 400 = 5u – 25
20u – 5u = 400 – 25
15u = 375
1u = 25
9u = **225 books**

17. B → $12
C → $18
12 x 4 = $48
378 – 48 = $330
12 + 18 = $30
330 ÷ 30 = 11
11 + 11 + 4 = **26 cakes**

18. (a) R : B
25 : 100
1u (3p) : 4u (12p)
-3p : -5p
0 7p
1u → 3p
4u → 12p
7p → 28
p → 4
3p → **12 buttons**
(b) 12 ÷ 3 = **4 dresses**

NAN HUA PRIMARY SCHOOL
CONTINUAL ASSESSMENT 1 – 2014
PRIMARY 6

MATHEMATICS

Paper 1

Section A: 15 Multiple Choice Questions (20 marks)

Section B: 15 Questions (20 marks)

Total Time for Paper 1: 50 minutes

INSTRUCTION TO CANDIDATES

1. Write your name and index number in the space provided.
2. Do not turn over the page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Shade your answers in the Optical Answer Sheet (OAS) provided for Questions 1-15.
6. You are not allowed to use the calculator for Paper 1.

Marks Obtained

Paper 1		/ 40
Paper 2		/ 60
Total		/ 100

Name : _____ ( )

Class : _____

Date : 5 March 2014 Parent's Signature : _____

Section A (20 marks)

Questions 1 to 10 carry 1 mark each.

Questions 11 to 15 carry 2 marks each.

For each question, four options are given. One of them is the correct answe

Make your choice (1, 2, 3 or 4) and shade the oval (1, 2, 3 or 4) on the Optical Answer Sheet.

---

1. How many quarters are there in 4 wholes?

(1) 1

(2) $\frac{1}{16}$

(3) $3\frac{3}{4}$

(4) 16

2. $\frac{2}{3} \div \frac{3}{8} =$ _____.

What is the missing number statement in the blank?

(1) $\frac{2}{3} \times \frac{3}{8}$

(2) $\frac{2}{3} \times \frac{8}{3}$

(3) $\frac{3}{2} \times \frac{3}{8}$

(4) $\frac{3}{2} \times \frac{8}{3}$

3. Rachel was given $\frac{1}{3}$ of a cake She ate $\frac{2}{5}$ of it.

What ~~faction~~ fraction of the original cake did she eat?

(1) $\frac{1}{15}$

(2) $\frac{2}{15}$

(3) $\frac{4}{15}$

(4) $\frac{5}{6}$

4. The table below shows the number of books read by 36 pupils in Primary 6H.

Number of books read by each pupil	0	1	2	3	4
Number of pupils	3	9	12	7	5

What fraction of the pupils in Primary 6H read at least 2 books?

(1) $\frac{1}{12}$

(2) $\frac{1}{4}$

(3) $\frac{1}{3}$

(4) $\frac{2}{3}$

5. 25% of a number is 44. What is the number?

(1) 11

(2) 33

(3) 132

(4) 176

6. $\frac{2}{5}$ of a class are girls. The ratio of the number of boys to the number of girls in that class is _____.

(1) 2 : 3

(2) 3 : 2

(3) 2 : 5

(4) 3 : 5

7. Jenny has 2 times as many lollipops as Amy.
Tom has 3 times as many lollipops as Jenny.
What is the ratio of Jenny's lollipops to Amy's lollipops to the total number of lollipops?

(1) 1 : 2 : 6

(2) 2 : 1 : 6

(3) 1 : 2 : 9

(4) 2 : 1 : 9

8. The ratio of the number of women to the number of men at a concert is 3 : 4.
There are 84 adults at the concert.
How many men are there?

(1) 12

(2) 36

(3) 48

(4) 63

9. If ☼ - ☾ = 1

☼ + ☾ = 35

then,

☼ + ☾ + ☾ = ?

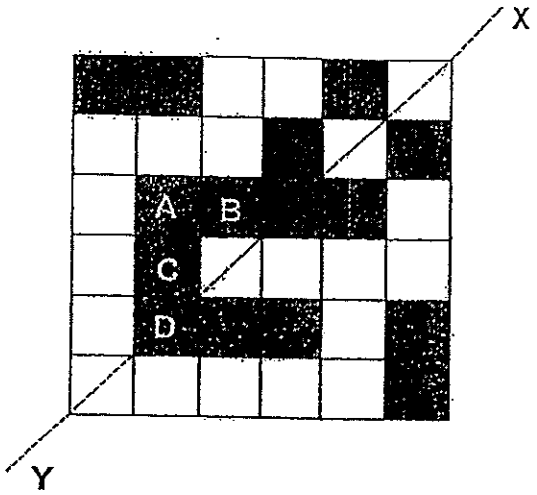
(1) 34

(2) 36

(3) 52

(4) 53

10. Which square below must be **unshaded** to make the figure symmetrical along the line XY?



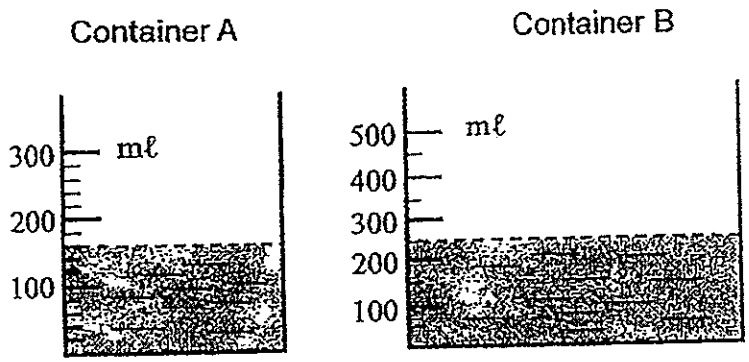
1) A

2) B

3) C

4) D

11. The diagram below shows 2 containers (A and B) partly filled with water.



What is the average amount of water in each container?

(1) 200 mℓ

(2) 205 mℓ

(3) 210 mℓ

(4) 215 mℓ

12. At a Sports Carnival, $\frac{2}{3}$ of the number of boys is equal to $\frac{3}{5}$ of the number of girls. If there are 50 more girls than boys, how many pupils are there at the Sports Carnival altogether?

(1) 450

(2) 500

(3) 750

(4) 950

13. Kenneth spent \$80 of his allowance and saved the rest.
When he increased his spending by 10%, his savings decreased by 20%.
How much was his allowance?

(1) \$ 40

(2) \$ 88

(3) \$ 120

(4) \$ 160

14. Sam saw the advertisement below outside a watch shop.

Find the percentage decrease in the selling price of the watch.

(1) 25 %

(2) 30 %

(3) $33\frac{1}{3}$ %

(4) $133\frac{1}{3}$ %

15. There are some turkeys, chickens and ducks in a farm. $\frac{2}{5}$ of the animals are turkeys, the rest are chickens and ducks. The ratio of the number of chickens to the number of ducks is 7 : 8 .

If there are 20 more turkeys than ducks, how many farm animals are there?

(1) 70

(2) 80

(3) 100

(4) 250

Section B (20 marks)

Questions 16 to 25 carry 1 mark each. Questions 26 to 30 carry 2 marks each.
For each question from 26 to 30, **show your workings clearly in the space** and write your answer in the space provided. Give your answers in the units stated.

16. 6 pizzas were shared among some children. If each of them received $\frac{3}{8}$ of a pizza, how many children were there?

Ans: _____ children

17. Tom has $\frac{3}{4}$ m of ribbon. If he wants to cut the ribbon into pieces of $\frac{1}{3}$ m each, how many such pieces of ribbon will he get?

Ans : _____ pieces

18. Mrs Gomi paid $160 for an oven during a sale after a 20% discount. What was the original price of the oven?

Ans : $_____

3

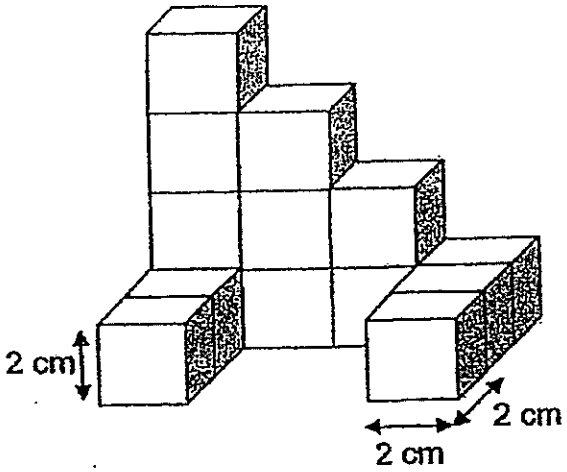
19 Find the value of 0.8 ÷ 100. Give your answer in decimal form.

Ans: _____

20. The ratio of the number of rabbits to the number of hamsters in a pet shop is 2 : 5. If there are 35 hamsters, how many rabbits are there in the pet shop?

Ans : _____ rabbits

21. The solid below is formed by stacking up identical 2-cm cubes. Find the volume of the solid below.



Ans: _____ cm^3

3

22. The ratio of the number of apples to the number of oranges is 7 : 8. The number of pears is $\frac{1}{4}$ of the number of oranges. What is the ratio of the number of apples to the number of oranges to the number of pears?

Ans : _____

23. 12 : 18 : 27 = 8 : $\boxed{\ ?\ }$: 18

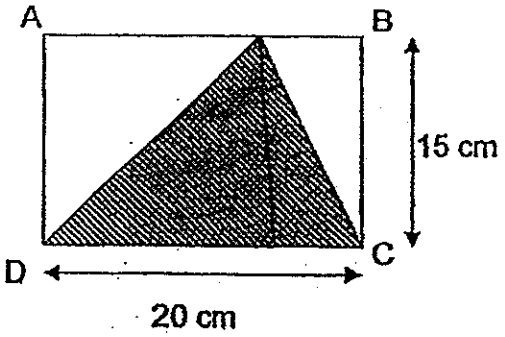
What is the missing number in the box?

Ans : _____

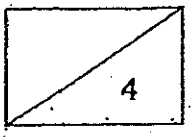
24. Tom and Bruce shared some marbles in the ratio of 4 : 5. Bruce lost half of his marbles. What is the new ratio of the number of marbles Tom has to the number of marbles Bruce has in the end?

Ans : _____

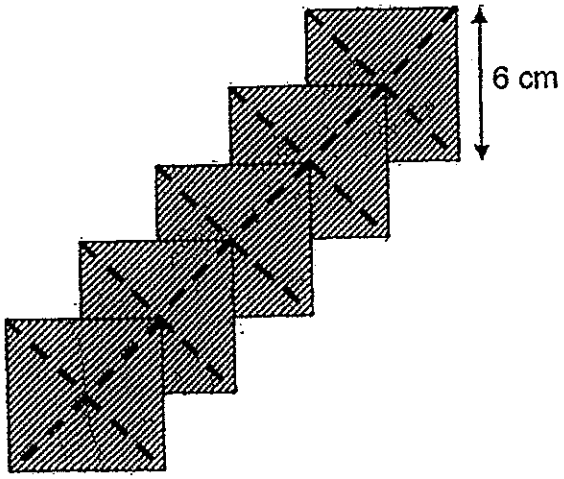
25. ABCD is a rectangle. Given that DC is 20 cm and BC is 15 cm, find the area of the unshaded parts.



Ans: _____ cm^2



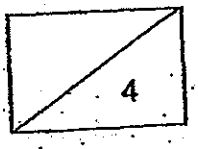
26. The figure below is made up of overlapping squares of sides 6 cm.
Find the area of the shaded figure.
(The figure is not drawn to scale.)



Ans : _____ cm^2

27. A ribbon measuring 8 m long is cut into smaller pieces of $\frac{3}{4}$ m each. What is the length of the leftover piece? Express your answer in its simplest form.

Ans : _____ m



28. At 9 a.m., a tap was turned on to fill an empty tank with water. At 12 p.m., the tank was $\frac{1}{3}$ filled with water. At what time would the tank be $\frac{8}{9}$ filled with water flowing from the tap at the same rate?

Ans:_____ p.m.

29. Ray saves 20 cents each day. He saves $\frac{1}{3}$ of what his brother saves each day. How many days will it take for both of them to save $56 together?

Ans: _____ days

4

30. James had 200 game cards at first. He gave away 20% of them. His father then bought him 20% of what he had left. How many game cards did James have in the end?

Ans: _____

End-of-Paper 1

Remember to check your work

2

NAN HUA PRIMARY SCHOOL
CONTINUAL ASSESSMENT 1-2014
PRIMARY 6

MATHEMATICS

Paper 2

Total Time for Paper 2:1 hour 40 minutes

INSTRUCTION TO CANDINDATES

1. Write your name and index number in the space provided.
2. Do not turn over the page until you are told to do so.
3. Follow all intructions carefully
4. Answer all questions and show your workings clearly.
5. You are allowed to use a calculator.

Marks Obtained

Total		/ 60

Name: _____( )

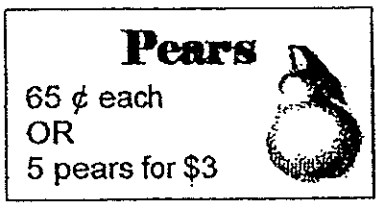
Class: _____

Date:5 March 2014 **Parent's Signature :**_____

Paper 2 (60 marks)

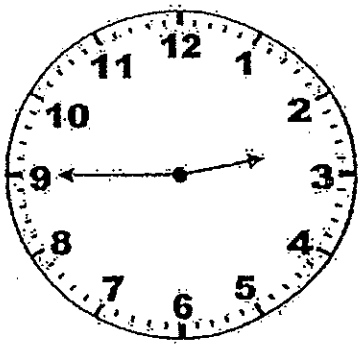
Questions 1 to 5 carry 2 marks each. Show your workings clearly in the space below it and write your answer in the space provided. Give your answers in the units stated.

1. Alice wanted to buy 17 pears from a fruit stall. The pears were sold in 2 ways as shown below. What was the **least** amount of money that she could pay for the pears?



Ans: $_____

2. The time on a clock is 1445.
What will the be after the minute hand made a $\frac{3}{4}$ turn (in the clockwise direction) ?Give your answer in 24h clock.



Ans:_____

4

3. School A has twice as many pupils as school B.

$\frac{2}{9}$ of the pupils in School A are girls. $\frac{5}{9}$ of the pupils in School B are girls.

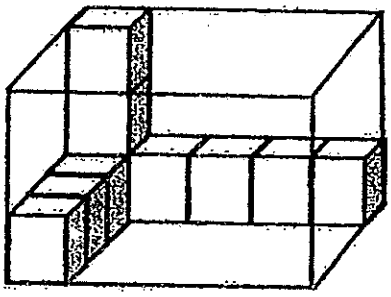
What is the ratio of School A's girls to School B's boys?

Express your answer in its simplest form.

Ans: _____

4. The figure below a rectangular transparent box partly filled with identical cubes. Each cube measures 1cm on any of its side.

What is the volume of rectangular box?



Ans:_____ cm^3

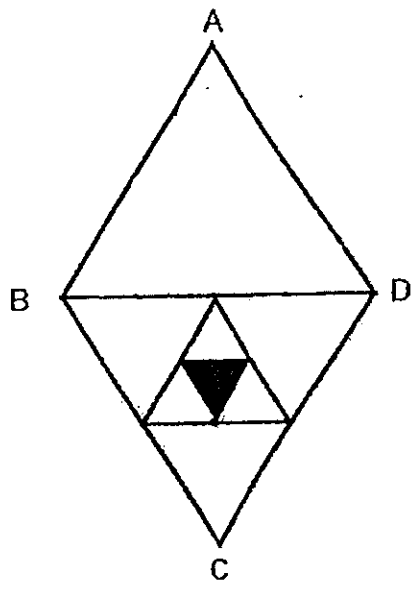
4

5. In the figure below,ABD and BCD are indentical equilateral triangles

All the smaller triangles are formed by connecting the midpoints of the sided of the bigger triangle.

What percentage of the whole figure ABCD is shaded?

Corret your answer to 2 decimal places.



Ans: _____ %

2

For each question from 6 to 18, **show your workings** clearly in the space below it and write your answer in the space provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question.
Remember to include the units wherever possible.

6. The total mass of Basket A and Basket B is 131 kg and the total mass of Basket B and Basket C is 87 kg. Basket A is thrice as heavy as Basket C. What is the total mass of the three baskets?

Ans: _____ [3]

7. Jim and Jane had 560 stickers altogether. When Jim gave $\frac{2}{7}$ of his stickers to Jane, Jim had 240 stickers left. How many stickers did Jane have at first?

Ans: _____ [3]

6

8. Jack spent $\frac{1}{5}$ of his money and an additional \$4 on a book. He then spent $\frac{3}{4}$ of the remaining money and an additional \$6 on a shirt. If he saved the remaining \$14, how much money did he have at first?

Ans: _____ [3]

9. Carmen spent \$900 of her savings on a bag and 30% of her remaining money on a pair of shoes. if she had half of her savings left,how much was her savings?

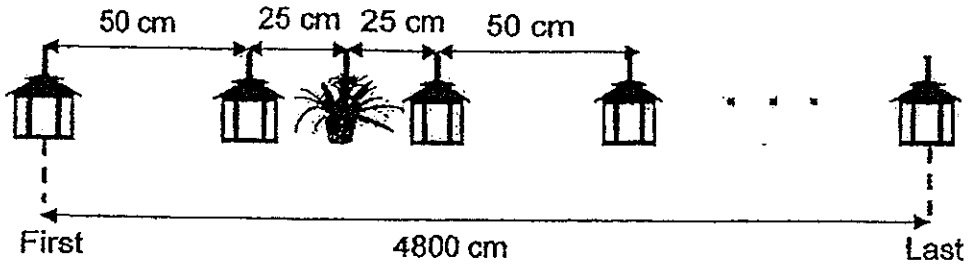
Ans: _____ [3]

6

10. Some lanterns and plants were hung as shown in the diagram below. A plant was placed after every 2 lanterns. The distance between two lanterns was always 50 cm and the distance between the plant and the lantern was always 25 cm. The distance between the first and the last lantern was 4800 cm.

a) Find the total number of plants used in such an arrangement.

b) Find the total number of lanterns used in such an arrangement



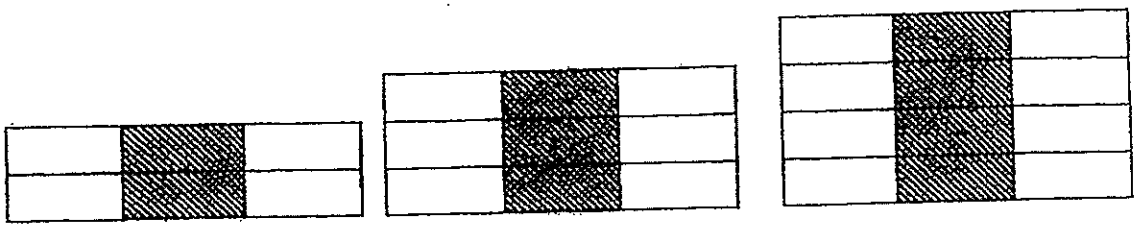
Ans: (a)_____ [1]

(b)_____ [2]

3

11. The patterns below consist of shaded and unshaded rectangles.

Study the patterns carefully and answer the following questions.



Pattern 1 Pattern 2 Pattern 3

Pattern	Shaded rectangles	Total rectangles
1	2	6
2	3	9
3	4	12
⋮	⋮	⋮
100	?	?

(a) Find the number of shaded rectangles in Pattern 100.

(b) Find the total number of rectangles in Pattern 100.

(c) Find the number of unshaded rectangles in Pattern 100.

Ans: (a)_____ [1]

(b)_____ [1]

(c)_____ [1]

3

12. Sharon wishes to buy a dress but does not have enough savings. If she increases her savings by 25%, she would need another $12. If she increases her savings by 35%, she would be able to buy the dress and has $16 left. How much does the dress cost?

Ans:_____[4]

4

13. Mary baked some chicken pies and apple pies. The ratio of the number of chicken pies to the number of apple pies was 3 : 5. After giving away an equal number of each type of pies, the ratio of the number of chicken pies left to the number of apple pies,left was 7: 13. If she had 1776 pies at first, how many pies did she give away in total?

Ans: _____ [4]

4

14. In a carton, $\frac{2}{3}$ of the fruits were pears and the rest were apples. If Meiling took out 18 pears and replaced with the same number of apples, the number of pears was 80% of the number of apples. What was the total number of fruits in the carton?

Ans: _____ [4]

4

15. Simon and Peter had a total of 900 cards.

Simon gave $\frac{1}{5}$ of his cards to Peter. Peter then gave $\frac{1}{4}$ of his cards to Simon.

In the end, each of them had the same number of cards.

How many cards did Simon have at first?

Ans: _____ [5]

5

16. A number of tourists visited the Universal Studios Singapore on Monday. The ratio of the number of adults (excluding senior citizens) to the number of children is 3 : 5.

The ratio of the number of adults to the number of senior citizens is 4 : 1.

The price of the admission tickets were shown below:

Admission	**Prices for each ticket**
1 Adult	$ 74
1 Child	$ 54
1 Senior citizen	$ 36

The Universal Studios Singapore collected $ 49 824 on that day.
How many children visited the Universal Studios Singapore on that day?

Ans: _____ [5]

5

17. Polly had 360 dolls more than Ariel at first.

After Polly gave away $\frac{1}{4}$ of her dolls and Ariel gave away $\frac{2}{3}$ of her dolls, they had 764 dolls altogether.

How many dolls did they give away altogether?

Ans: _____ [5]

5

18. Jon, Molly and Chris shared some sweets. The ratio of the total number of sweets received by Jon and Molly to the number of sweets received by Chris was 2 : 5. When Chris gave 25 sweets to Jon and 31 sweets to Molly, and Jon gave 12 sweets to Molly, each of them had the same number of sweets. Find the total number of sweets Jon had at first.

Ans: _____ [5m]

End of Paper 2

Remember to check your work.

5

ANSWER SHEET

EXAM PAPER 2014
SCHOOL : NAN HUA
SUBJECT : PRIMARY 6 MATHEMATICS

TERM : CA1

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
4	2	2	4	4	2	4	3	3	2	2	4	3	1	4

16)16 children 17)2 pieces 18)$200 19)0.008 20)14 rabbits

21)112 cm^3 22)7 : 8 : 2 23)12 24)8 : 5 25)150 CM^2

26)144 CM^2 27) ½ 28)5 P.M. 29)70 days 30)192

Paper 2

1)17÷5= 3r2
3 x $3 = $9
2 x $0.65 = $1.30
$9 + $1.30 = $10.30

2)1530

3)1 : 1

4)5 x 4 x 3 = 60 cm^3

5)shaded→1
BCD→4 x 4 = 16
Fig→16 x 2 = 32
1/32 x 100% ≈3.13%

6)131 – 87 = 44
2u→44
1u→44÷2 = 22
87 – 22 = 65
4u→22 x 2 = 88
88 + 65 = 153 kg

7)5u→240
1u→240÷5 = 48
7u→48 x 7 = 336
560 – 336 = 224 stickers

8)<u>Remaining</u>
¼ →$6 + $14 = $20
1→$20 x 4 = $80

<u>Total</u>
$80 + $4 = $84
$84÷4 = $21
$21 x 5 = $105

9)3u + $900→7u
7u – 3u = 4u
4u→$900
u→$900÷4 = $225
10u→$225 x 10 = $2250
$2250 + $900 = $3150

10)4800 cm÷50 cm = 96

a)96 + 1 = 97
97÷2 = 48 r1 = 48
b)96 + 1 = 97

11)a)shaded rectangles→n + 1
n→100
n + 1 = 100 + 1 = 101

b)total rectangles→3n + 3
n→100
3n→100 x 3 = 300
300 + 3 = 303

c)303 – 101 = 202

12)135% - $16→125% + $12
135% - 125% →$16 + $12
10% →$28
1% →$28÷10 = $2.80
125% →$2.80 x 125 = $350
$350 + $12 = $362

13)15u + 9u →1776
24u →1776
4u →1776÷6 = 296

14)6u – 4u = 2u
2u →18
U →18÷2 = 9
9u →9 x 9 = 81

15)900÷2 = 450
3/9 →450
4/9 →450÷3 x 4 = 600
1/9 →150
450 – 150 = 300
4/5 →300
5/5 →300÷4 x 5 = 375

16)12 x $74 = $888
20 x $54 = $1080
3 x $36 = $108
$888 + $1080 + $108 = $2076
$49824÷$2076 = 24
24 x 20 = 480

17)508

18)14u – 6u = 8u
8u→25 + 31 = 56
u→56÷8 = 7
7u→7 x 7 = 49
49 – 25 = 24
24 + 12 = 36

NANYANG PRIMARY SCHOOL

FIRST CONTINUAL EXAMINATION
2014
PRIMARY 6
MATHEMATICS
PAPER 1

DURATION: 50 MINUTES

Booklet A	/ 20
Booklet B	/ 20

Paper 1 Total: / 40

Name: _____ ( )

Class: Primary 6 ( )

Date: _____

Parent's Signature: _____

Any query on marks awarded should be raised by **13 March 2014**. We seek your understanding in this matter as any delay in the confirmation of marks will lead to delays in the generation of results.

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

FOLLOW ALL INSTRUCTIONS CAREFULLY.

ANSWER ALL QUESTIONS.

YOU ARE **NOT** ALLOWED TO USE A CALCULATOR.

PAPER 1 (BOOKLET A)

Questions **1** to **10** carry 1 mark each. Questions **11** to **15** carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the oval (1, 2, 3 or 4) on the Optical Answer Sheet.

(20 marks)

---

1 Simplify $11a + 15 - 2a - 8$.

(1) $5a + 7$

(2) $5a + 23$

(3) $9a + 7$

(4) $9a + 23$

2 What is the value of $520\cancel{0} \div 2\cancel{0}$?

(1) 26

(2) 260

(3) 2600

(4) 26 000

3 Find the value of $26 - 3 \times 2 + (8 + 8 \div 2)$.

(1) 28

(2) 32

(3) 54

(4) 58

4 Which of the following fractions are the equivalent fractions of $\frac{4}{12}$?

$$\frac{1}{3}, \quad \frac{1}{4}, \quad \frac{2}{8}, \quad \frac{3}{9}$$

(1) $\frac{1}{3}$ and $\frac{3}{9}$

(2) $\frac{1}{3}$ and $\frac{2}{8}$

(3) $\frac{1}{4}$ and $\frac{3}{9}$

(4) $\frac{1}{4}$ and $\frac{2}{8}$

5 What number is 4.63 less than 6.96?

(1) 2.06

(2) 2.33

(3) 11.32

(4) 11.59

6 What percentage of 2 kg is 400 g?

(1) 20%

(2) 50%

(3) 200%

(4) 500%

7 Find the value of $\frac{5}{9} - \frac{1}{3}$

(1) $\frac{2}{9}$

(2) $\frac{4}{9}$

(3) $\frac{4}{6}$

(4) $\frac{8}{9}$

8 The total length of 30 rods is 6 m. What is the average length of the rods?

(1) 0.2 cm

(2) 2 cm

(3) 5 cm

(4) 20 cm

9 Find the value of $\frac{12}{7} \times 21$

(1) 35

(2) 36

(3) 3

(4) 4

10 Mary and John were given $\frac{5}{6}$ of a pizza. They shared the pizza equally. What fraction of the pizza did each of them receive?

(1) $\frac{5}{12}$

(2) $\frac{10}{12}$

(3) $\frac{10}{6}$

(4) $\frac{12}{5}$

11 What is the missing number in the box below?

$$0.625 \times 100 = \boxed{} \div 10$$

(1) 6.25

(2) 62.5

(3) 625

(4) 6250

12 The number of children increased by 15 to 35 at a party. What was the percentage increase in the number of children?

(1) 30%

(2) $42\frac{6}{7}\%$

(3) $57\frac{1}{7}\%$

(4) 75%

13 The dimensions of a rectangular yard are $4\frac{2}{3}$ m and 6 m. What is the area of the yard?

(1) $10\frac{2}{3}$ m^2

(2) 16 m^2

(3) $24\frac{2}{3}$ m^2

(4) 28 m^2

14 The average age of Elvin's friends was 11 years old. Elvin was 7 years old. After Elvin joined the group, the average age became 10 years old. How many children were there in the group after Elvin joined in?

(1) 5

(2) 6

(3) 3

(4) 4

15 Felix bought 5 sacks of flour for his bakery. Each sack of flour was 25 kg. He used 73 kg and packed the remaining flour into 4 smaller packets of equal mass. What was the mass of each smaller packet of flour?

(1) 13 kg

(2) 38 kg

(3) 48 kg

(4) 52 kg

Name: _____( ) Class: Pr 6 ( )

P6 CA1 2014

PAPER 1 (BOOKLET B)

Questions **16** to **25** carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(10 marks)

---

16 Find the value of $18 + 5b - 2b - 4$ when $b = 3$.

Ans: _____

---

17 What is the product of 67 and 8?

Ans: _____

---

18 Find the value of $\frac{3}{7} \times \frac{7}{12}$.

Express your answer as a fraction in its simplest form.

Ans: _____

19 Express 30 tens, 62 hundredths and 8 thousandths as a decimal.

Ans: _____

20 Round off 23 890 to the nearest thousand.

Ans: _____

21 Find the value of $4 \div \frac{6}{7}$.

Leave your answer as a mixed number in its simplest form.

Ans: _____

---

22 Given that $35 \times 9 = 315$, what is the missing number in the box below?

$$35 \times \boxed{\ ?\ } = 31.5$$

Ans: _____

---

23 Mr Yan walked 632 m from his house to Town A to visit a friend. He then walked back 314 m towards his house along the same route to Tella Supermarket. What was the distance between Mr Yan's house and Tella Supermarket?

Ans: _____ m

---

24 Eva had $150 at first. She spent 30% of her money on a wallet. How much did she spend?

Ans: $_____

25 A tank was 70% full of water. When 15 *l* of the water leaked out, there were 34 *l* of water left in the tank. What was the capacity of the tank?

Ans: _____ *l*

Questions **26** to **30** carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(10 marks)

---

26 After selling 350 kg of rice, Mr Tan had $\frac{3}{4}$ of the rice left. He then gave away the remaining rice equally to 5 charitable organisations. How much rice did each organisation receive?

Ans: _____ kg

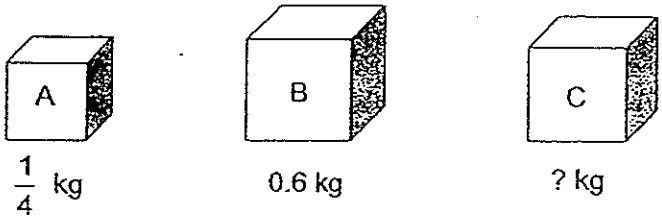
---

27 Xian Zhong saved 40% of his salary every month. When Xian Zhong's salary was reduced by 10%, his savings became $360. What was his salary at first?

Ans: $ _____

---

28 The average mass of the 3 boxes shown below is $\frac{9}{20}$ kg. Given that the masses of Boxes A and B are $\frac{1}{4}$ kg and 0.6 kg, what is the mass of Box C?



Ans: _____ kg

29 There were $25c$ red marbles in a container. $\frac{1}{5}$ of the red marbles were taken out. 15 blue marbles were then placed into the container. How many marbles were there in the container in the end? Express your answer in terms of c.

Ans: _____

---

30 Every 2nd customer is given a toy and every 4th customer is given a free ice-cream while every 9th customer is given a free apple pie at the newly-opened Yummy Burger. Kylar received all the 3 free gifts just by visiting the restaurant once. Given that he was among the first 50 customers, what customer number was Kylar?

Ans: _____

NANYANG PRIMARY SCHOOL

FIRST CONTINUAL EXAMINATION 2014

PRIMARY 6 MATHEMATICS PAPER 2

DURATION: 1 HOUR 40 MINUTES

Paper 2 Total	/ 60
GRAND TOTAL	/ 100

Name: _____ ( )

Class: Primary 6 ( )

Date: _____

Parent's Signature: _____

Any query on marks awarded should be raised by **13 March 2014**. We seek your understanding in this matter as any delay in the confirmation of marks will lead to delays in the generation of results.

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

FOLLOW ALL INSTRUCTIONS CAREFULLY.

ANSWER ALL QUESTIONS.

YOU ARE ALLOWED TO USE A CALCULATOR.

PAPER 2

Questions **1** to 5 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(10 marks)

---

1 Mrs Verlu's annual income is $26 400. She puts 20% of her annual income in a bank which pays 4% interest per year. How much interest will Mrs Verlu receive at the end of the year?

Ans. $_____

---

2 Chef Lee bought $6\frac{1}{4}$ kg of fish. He used $2\frac{5}{8}$ kg of it to cook curry fish. He then bought another $2\frac{3}{5}$ kg of fish. What was the mass of the fish he had in the end?

Ans: _____ kg

---

3 4 cups and 3 bowls cost \$12. 3 cups and 1 bowl cost \$7. Find the cost of 1 cup.

Ans: \$ _____

4 The average of seven numbers is 56. 1 is added to the first number, 2 is added to the second number, 3 is added to the third number and so on, up to the seventh number. Find the new average.

Ans: _____

5 Brienna wants to mark some crosses on the outline of a circle as shown in the diagram below. The crosses are evenly spaced out and the 5th cross is directly opposite the 14th cross. Find the number of crosses that Brienna can mark on the outline of the circle.

Ans: _____

For questions **6** to **18**, show your working clearly in the space provided for each question and write your answers in the spaces provided.
The number of marks available is shown in brackets [ ] at the end of each question or part-question.

(50 marks)

---

6 A soft plastic sheet with a thickness of 0.24 cm is folded so that it is twice as thick after each fold.

(a) How thick is the plastic sheet after 2 folds?

(b) What is the greatest number of folds needed for the thickness of the plastic sheet to be not more than 16 cm thick?

Ans: (a) _____ [1]

(b) _____ [2]

---

7 A delivery company charges a fixed amount of \$28 for delivery of any parcel weighing not more than 10 kg. It charges an extra amount of p cents for every extra kilogram the parcel weighs. Mrs Pillay wants to deliver a parcel of 8 kg and a parcel of 12 kg. How much does she have to pay the delivery company in total in terms of p? Express your answer in dollars.

Ans: _____ [3]

8 There was $\frac{9}{10}$ *l* of alcohol in a beaker. $\frac{2}{3}$ of it was used in an experiment. The remaining volume of the alcohol was poured into 6 test tubes each of equal volume.

(a) What was the volume of alcohol used in the experiment?

(b) What was the volume of alcohol in each test tube?
Express your answer in *ml*.

Ans: (a) _____ [1]

(b) _____ [2]

9 Mr Osman bought 30 watches. Given a discount of 25%, he paid for 20 female watches at $120 each and 10 male watches at $90 each. How much did the watches cost before the discount?

Ans: _____ [3]

---

10 Lendy paid $364 for some pairs of trousers and shirts. A shirt cost $28 and a pair of trousers cost 3 times as much as a shirt. He bought 5 more shirts than trousers. How many pairs of trousers did he buy?

Ans: _____ [3]

---

11 There were 420 visitors at the Arts Museum. $\frac{2}{7}$ of them were adults. The rest were children. $\frac{3}{8}$ of the adults were men and $\frac{2}{5}$ of the children were girls.

(a) How many women were there at the museum?

(b) How many more boys than adults were there?

Ans: (a) _____ [2]

(b) _____ [2]

12 Bingwei has some coins in his savings box. There are 15 fewer 50-cent coins than 20-cent coins. The total value of the coins is \$21.90. Find the total number of coins Bingwei has in his savings box.

Ans: _____ [4]

13 There were 36 tulips, 48 roses and 60 carnations in a shop at first. When 39 more flowers were added, the number of roses was increased by 25% and the number of carnations was increased by 30%. What was the percentage increase in the number of tulips?

Ans: _____ [4]

14 Mrs Lucien started her journey with 22.8 *l* of petrol in the tank. After travelling for a distance, she found that there was only 3.8 *l* of petrol left. She refilled \$48 worth of petrol at 80¢ per litre. At the end of her journey, 10.8 *l* of petrol was left in the tank. 0.2 *l* of petrol was needed for every 1 km. What was the total distance Mrs Lucien covered?

Ans: _____ [4]

15 Study the pattern below.

1 + 1

1 + 2 + 2 + 1

1 + 2 + 3 + 3 + 2 + 1

1 + ( )+ ( )+ ( )+ ( )+ ( )+ ( )+ 1

(a) Complete the pattern of the 4th line by writing your answers in the brackets provided above. [1]

(b) What is the sum of numbers in the 5th line?

(c) Which line has a sum of 110?

Ans: (b) _____ [2]

(c) _____ [2]

16 Tom's allowance is \$15 more than Jack's allowance each week. Each of them spends \$12 per week and saves the rest. When Tom saves \$161, Jack saves \$56. How much is Tom's weekly allowance?

Ans: _____ [5]

17 The mass of the flour in Sack A was $\frac{2}{5}$ the mass of the flour in Sack B.

After adding 200 g of flour into Sack A and 2 kg 400 g of flour into Sack B, the mass of the flour in Sack A was $\frac{1}{5}$ the mass of flour in Sack B.

(a) What was the mass of the flour in Sack A at first?

(b) What was the mass of the flour in Sack B in the end?
Express your answer in kg and g.

Ans: (a) _____ [3]

(b) _____ [2]

18 Benny, Hamid and Anbu decided to share and buy a present for their friend. Benny agreed to contribute 30% of the cost of the present while Hamid would contribute 40% of the remaining amount. The balance would be paid by Anbu. The cost of the present they intended to buy increased by 25%. As a result, Benny had to pay $45 for his share.

(a) What was the cost of the present before the increase?

(b) How much did Anbu have to pay in the end?

Ans: (a) _____ [3]

(b) _____ [2]

END OF PAPER

Exam Paper 2014 Answer Sheet

School: NANYANG PRIMARY SCHOOL
Subject: PRIMARY 6 MATHEMATICS
Term: CA1

Paper 1

1)	3	6)	1	11)	3
2)	2	7)	1	12)	4
3)	2	8)	4	13)	4
4)	1	9)	2	14)	4
5)	2	10)	1	15)	1

16. 23

17. 536

18. $^1/_4$

19. 300.628

20. 24000

21. $4^2/_3$

22. 0.9

23. 318

24. 45

25. 70

26. 350 x 3 = 1050
    1050 ÷ 5 = **210**

27. Last time → 100% x $^4/_{10}$ = 40%
    Now → 90% x $^4/_{10}$ = 36% → $360
    1% → $10
    100% → **$1000**

28. 450 x 3 = 1350
    1350 – 250 – 600 = 500g = **0.5kg**

29. 25c x $^1/_5$ = 5c
    25c – 5c = 20c
    20c + 15 = **20c + 15**

30. Multiple of 2: 2, 4, 6, 8, ..., 36
Multiple of 4: 4, 8, 12, 16, ..., 36
Multiple of 9: 9, 18, 27, **36**

Paper 2

1. $^{20}/_{100}$ x \$26400 = \$5280
$^{4}/_{100}$ x \$5280 = **\$211.20**

2. $6^{1}/_{4} - 2^{5}/_{8} + 2^{3}/_{5} = \mathbf{6^{9}/_{40}}$

3. 4c + 3b → \$12
3c + 1b → \$7 (x3)
9c + 3b → \$21
4c + 3b → \$12
\$21 - \$12 = \$9
5c → \$9
1c → **\$1.80**

4. 56 x 7 = 392
1 + 2 + 3 + 4 + 5 + 6 + 7 = 28
392 + 28 = 420
420 ÷ 7 = **60**

5. 8 + 8 + 2 = **18**

6. (a) 1 fold → 0.24 x 2 = 0.48
2 folds → 0.48 x 2 = **0.96cm**
(b) 3 folds → 0.96 x 2 = 1.92
4 folds → 1.92 x 2 = 3.84
5 folds → 3.84 x 2 = 7.68
6 folds → 7.68 x 2 = 15.36

7. 1 extra kg → p cents = \$$^{p}/_{100}$
8kg → \$28
12kg → \$28 + \$$^{2p}/_{100}$
\$28 + \$28 + $^{2p}/_{100}$ = **\$(56 + $^{2p}/_{100}$)**

8. (a) $^{9}/_{10}$l = 900ml
900 x $^{2}/_{3}$ = **600ml**
(b) (900 – 600) ÷ 6 = **50ml**

9. 120 x 20 = 2400
90 x 10 = 900
2400 + 900 = 3300
3300 ÷ 75 x 100 = **\$4400**

10. S → \$28
T → \$84
\$364 – (\$28 x 5) = \$224

$28 + $84 = $112
$224 ÷ $112 = **2**

11. (a) Women → 420 x $^2/_7$ = 120
120 x $^5/_8$ = **75**
(b) Adults → 420 x $^2/_7$ = 120
Boys → 420 x $^5/_7$ = 300
300 x $^3/_5$ = 180 (Boys)
180 – 120 = **60**

12. 20 cents x 15 = 300 cents
$21.90 = 2190 cents
2190 cents – 300 cents = 1890 cents
50 cents + 20 cents = 70 cents
1890 cents ÷ 70 cents = 27
(27 x 2) + 15 = **69**

13. T → 36
100% → 125%
R → 48 → 60
100% → 130%
C → 60 → 78
36 + 48 + 60 = 144
144 + 39 = 183
183 – 60 – 78 = 45
45 – 36 = 9
$^9/_{36}$ → **25%**

14. 22.8 – 3.8 = 19
$48 ÷ 80 cents = 60
63.8l (after refill)
63.8 – 10.8 = 53
53 + 19 = 72
72 ÷ 0.2 = **360km**

15. (a) **2, 3, 4, 4, 3, 2**
(b) Line 5 → 1 + 2 + 3 + 4 + 5 + 5 + 4 + 3 + 2 + 1 = **30**
(c) 110 ÷ 2 = 55
55 → 1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 + 9 + **10**

16. 161 – 56 = $105
$105 ÷ 15 = 7 weeks of saving
$56 ÷ 7 = $8
$8 + $12 + $15 = **$35**

17. 10u + 1000 → 5u + 2400
5u → 1400
1u → 280
2u → 560
5u → 1400

1400 + 2400 = 3800g = **3kg 800g**

18. B → 30%
H → 28%
A → 42%
125%
B → 37.5%
H → 35%
A → 52.5%
(a) $45 ÷ 37.5 = $1.20 (1%)
1% → $1.20
100% → **$120**
(b) 52.5% → **$63**

Rosyth School
First Continual Assessment 2014
Primary 6 Mathematics

Name: _____ Register No. _____

Class: Pr 6 -_____

Date: 28 February 2014 Parent's Signature: _____

Total Time for Booklets A and B : 50 minutes

PAPER 1
(Booklet A)

Instructions to Pupils:

1. Do not open this booklet until you are told to do so.
2. Follow all instructions carefully.
3. Shade your answers in the Optical Answer Sheet (OAS) provided.
4. You are **not** allowed to use a calculator
5. Answer all questions.

Section	Maximum Mark	Marks Obtained
Paper 1 (Booklet A)	20	

*** This booklet consists of 7 pages (including this cover page)**

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Questions **1** to **10** carry 1 mark each. Questions **11** to **15** carry 2 marks each. For **each question, four options are given. One of them is the correct answer. Make** your choice (1, 2, 3 or 4). Shade the oval (1, 2, 3 or 4) on the Optical Answer Sheet.

(20 marks)

---

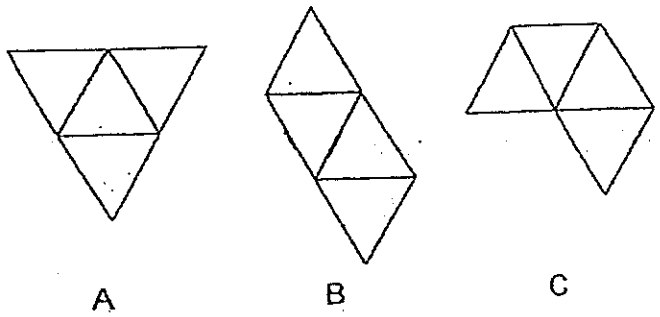
1. Round off 56 048 to the nearest hundred.

(1) 56 000
(2) 56 040
(3) 56 050
(4) 56 100

2. $\frac{7}{9} \times \frac{6}{13} = \frac{14}{\square}$

(1) 16
(2) 22
(3) 39
(4) 117

3. Which of the nets shown below can be folded to form a pyramid?



(1) A only
(2) A and B only
(3) A and C only
(4) B and C only

4. Simplify $7y - 2y \times 3 + 5y \times 2$

(1) 11y

(2) 17y

(3) 25y

(4) 40y

5. 100 pupils took part in a survey to find out their mode of transport. The results were tabulated as follows:

School Bus	Private Car	Walk	Public Bus
25	30	35	10

What is the ratio of the number of pupils who take the school bus to the number of pupils who take the public bus to the number of pupils who walk?

(1) 2 : 5 : 6

(2) 5 : 2 : 7

(3) 5 : 6 : 7

(4) 6 : 2 : 5

6. The usual price of a book was $25. It was sold for $10. What was the percentage discount on the book?

(1) 10 %

(2) 15 %

(3) 40 %

(4) 60 %

7. Boston invited 40 friends to his party. 12 of them were boys while the rest were girls. What percentage of the friends he invited were girls?

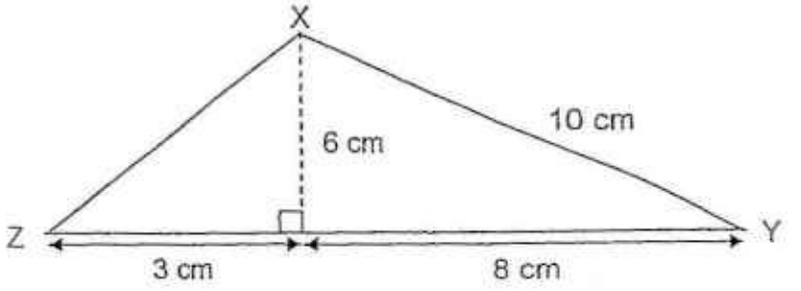
(1) 7%

(2) 28%

(3) 30%

(4) 70%

8. Find the area of triangle XYZ. (The figure is not drawn to scale)



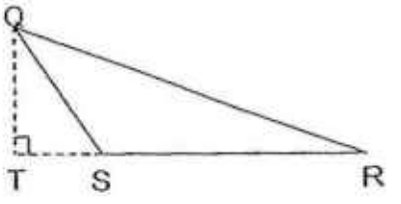
(1) 33 cm^2

(2) 39 cm^2

(3) 57 cm^2

(4) 66 cm^2

9. What is the area of triangle QRS as shown in the figure?



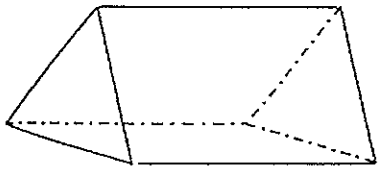
(1) $\frac{1}{2}$ x QR x QS

(2) $\frac{1}{2}$ x SR x QS

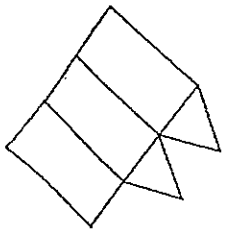
(3) $\frac{1}{2}$ x RT x QT

(4) $\frac{1}{2}$ x SR x QT

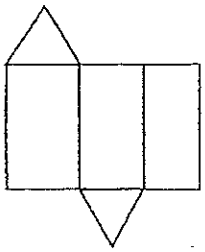
10. Which of the following nets can be folded to form this triangular prism?



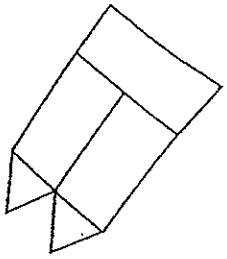
(1)



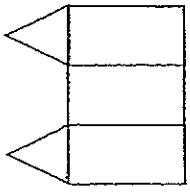
(2)



(3)



(4)



11. Find the ratio a : c.

a : b	b : c	a : c
2 : 3	4 : 7	?

(1) 2 : 7
(2) 8 : 12
(3) 8 : 21
(4) 12 : 21

12. The area of a rectangular science garden plot in a school is $\frac{3}{10}$ m². Its width is $\frac{1}{3}$ m. What is its length?

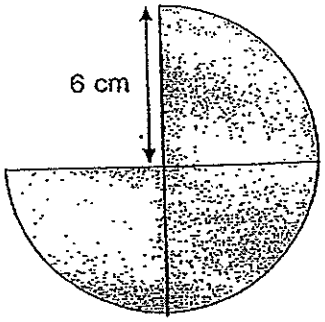
(1) $\frac{1}{10}$ m

(2) $\frac{9}{10}$ m

(3) $1\frac{1}{9}$ m

(4) 10 m

13. The figure below is made up of 3 identical quadrants with radius r = 6cm. What is the perimeter of the figure? Leave your answer in terms of π.



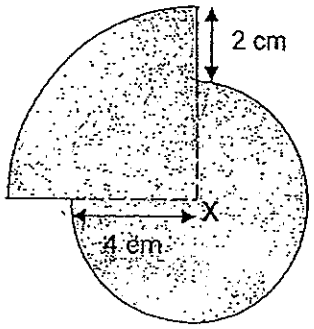
(1) (12π) cm

(2) $(\frac{3}{4} \times 12\pi)$ cm

(3) $(\frac{3}{4} \times 12\pi) + 6$ cm

(4) $(\frac{3}{4} \times 12\pi) + 12$ cm

14. The figure below is made up of a three-quarter circle and a quadrant. X is the centre of the circle. What is the area of the figure? Leave your answer in terms of π.



(1) 12π cm^2

(2) 16π cm^2

(3) 21π cm^2

(4) 36π cm^2

15. Mary buys 3 notebooks and 2 pencils from a bookshop. A notebook costs 2 times as much as a pencil. How much does each notebook cost if she pays \$6 altogether?

(1) \$1.20

(2) \$1.50

(3) \$2.00

(4) \$3.00

End of Booklet A

Rosyth School
First Continual Assessment 2014
Primary 6 Mathematics

Name: _____ Register No. _____

Class: Pr 6 - _____

Date: 28 February 2014 Parent's Signature: _____

Total Time for Booklets A and B : 50 minutes

PAPER 1
(Booklet B)

Instructions to Pupils:

1. Do not open this booklet until you are told to do so.
2. Follow all instructions carefully.
3. You are **not** allowed to use a calculator
4. Answer all questions.

Section	Maximum Mark	Marks Obtained
Paper 1 (Booklet B)	20	

*** This booklet consists of 6 pages (including this cover page)**

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Questions 16 to 25 carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(10 marks)

---

16. Write the following in numerals:
Two hundred and fifty-three thousand, one hundred and eight.

Ans: _____

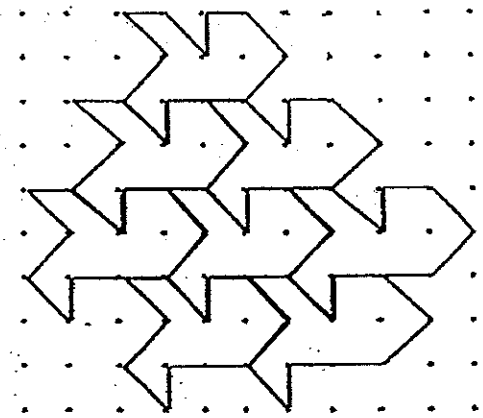
17. Express $4\frac{7}{8}$ as a decimal.

Ans: _____

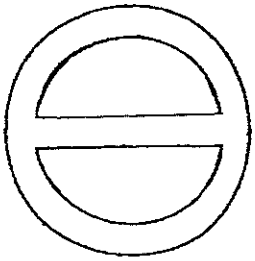
18. Express 0.22 as a percentage.

Ans: _____

19. Extend the tessellation by drawing 1 more unit shape in the space provided within the dot diagram.

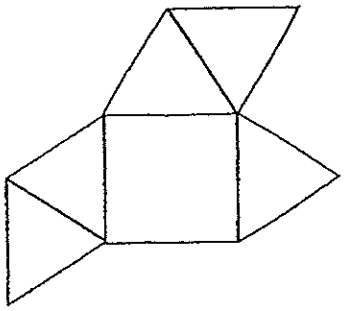


20. How many line(s) of symmetry does this figure have?



Ans: _____

21. The figure below shows an incorrectly drawn net of a pyramid.



Put an 'X' on the part which is wrongly drawn and should be removed.

22. What is the value of $\frac{8p}{3}$ when p = 5?

Ans: _____

23. $3 \times 7 - 10 + 54 \div 9 = \boxed{}$

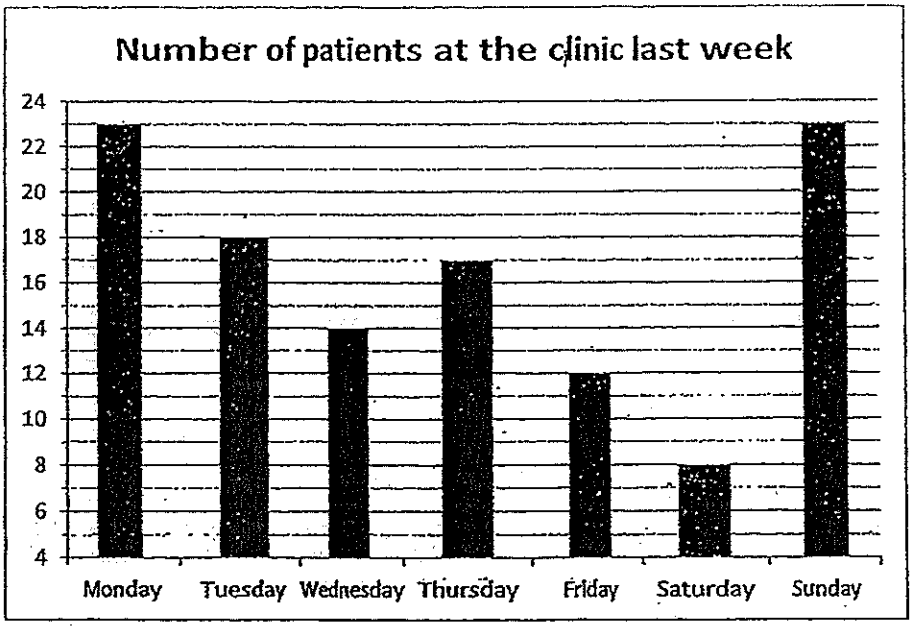
What is the missing value in the box?

Ans: _____

24. Mike had 360 picture cards. He gave $\frac{5}{6}$ of them to his sister. How many picture cards had he left?

Ans: _____

25. The graph below shows the number of patients at a clinic from Monday to Sunday.



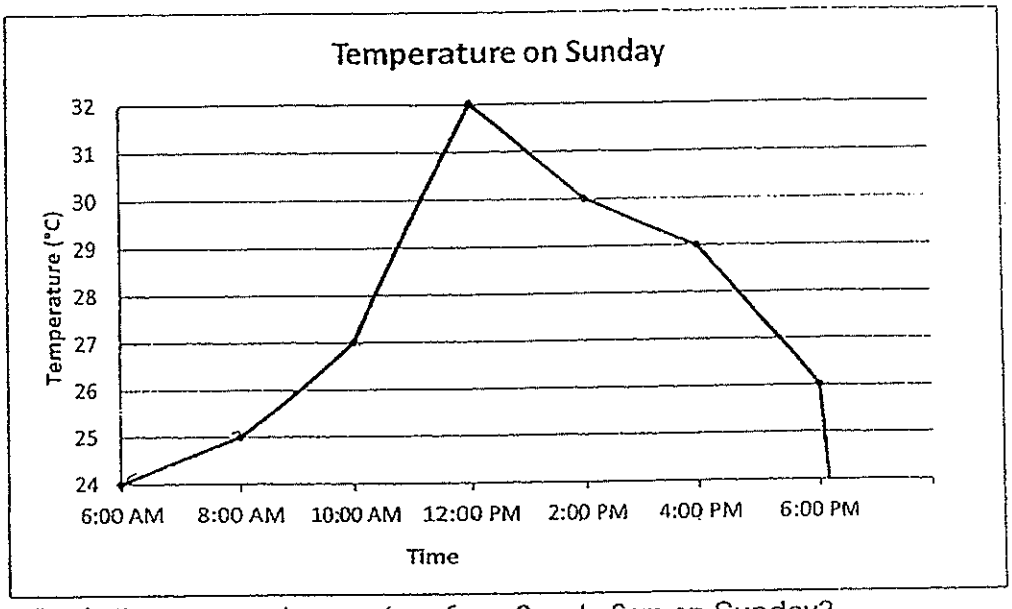
On which day was the number of patients $1\frac{1}{2}$ times that of Saturday?

Ans: _____

Questions **26** to **30** carry 2 marks each. Show your workings clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(10 marks)

26. The graph below that shows the temperature from 6am to 6pm on Sunday.



What is the average temperature from 6am to 6pm on Sunday?
Give your answer correct to one decimal place.

Ans: _____ ° C

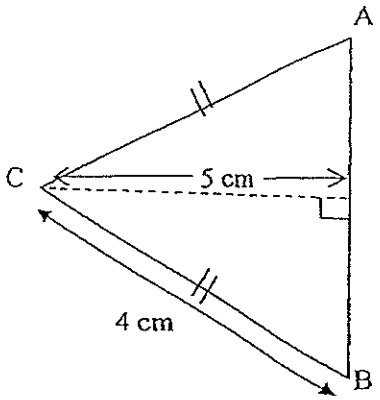
27. The ratio of Tina's mass to Farah's mass to Ginny's mass is 3 : 5 : 7.
Tina is 16 kg lighter than Ginny, find the total mass of the three girls.

Ans: _____ kg

28. Roy has 4y marbles. Ken has thrice as many marbles as Roy. Don has 8 marbles less than Ken. How many marbles do they have altogether?

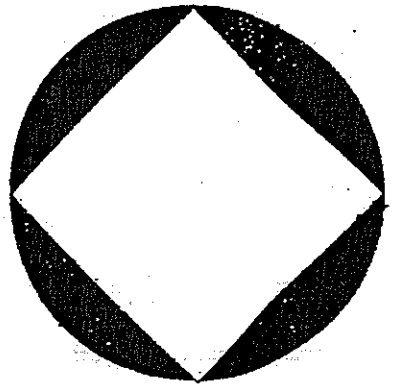
Ans: _____

29. The figure below is not drawn to scale. Triangle ABC is an isosceles triangle and the perimeter is 14 cm. Find the area of Triangle ABC.



Ans: _____ cm^2

30. The figure below consists of a square and a circle with diameter of 8 cm. What is the area of the shaded part? Leave your answer in terms of π.



Ans: _____ cm^2

End of Booklet B

Rosyth School
First Continual Assessment 2014
Primary 6 Mathematics

Name: _____ Register No. _____

Class: Pr 6 -_____

Date: 28 February 2014 Parent's Signature: _____

Time: 1 h 40 min

PAPER 2

Instructions to Pupils:

1. Do not open this booklet until you are told to do so.
2. Follow all instructions carefully.
3. **Show your workings clearly** as marks are awarded for correct working.
4. Write your answers in this booklet.
5. You are allowed to use a calculator
6. Answer all questions.

Questions	Maximum Mark	Marks Obtained
Q 1 to 5	10	
Q 6 to 18	50	

Section	Maximum Mark	Marks Obtained
Paper 1	40	
Paper 2	60	
Total	100	

*** This booklet consists of 16 pages (including this cover page)**

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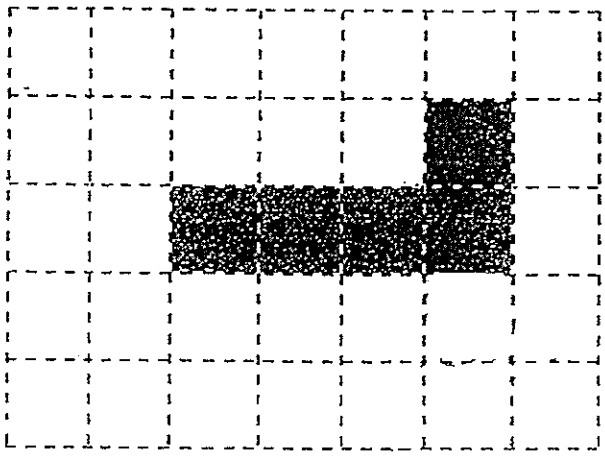
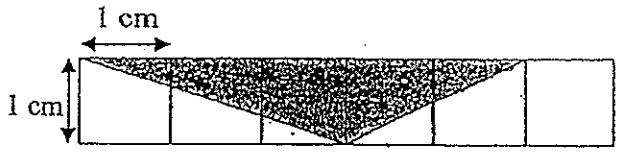
3. Draw and shade **one** more box in the grid below to form the net of a cube.

Do not write in this spac



4. Find the area of the shaded part shown below.



Ans: _____ cm^2

Questions 1 to 5 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

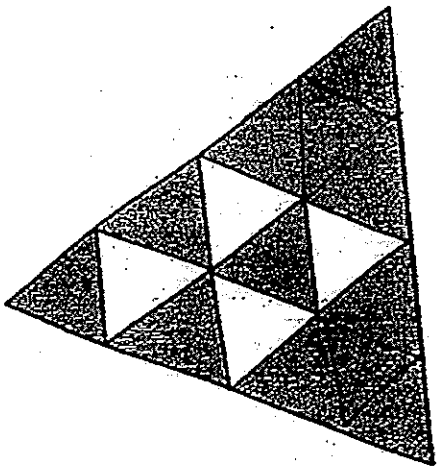
(10 marks)

Do not write in this space

1. $\frac{1}{2}$ of X is equal to $\frac{3}{5}$ of Y. What is the ratio of X : Y?

Ans: _____

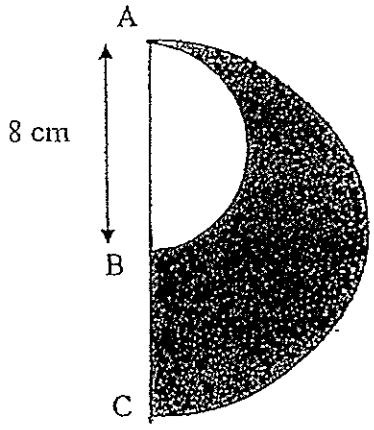
2. What fraction of the figure is shaded?



Ans: _____

Do not write in this space

5. The figure below (not drawn to scale) is made up of 2 semi-circles. Given that AB is the diameter of the smaller semi-circle and AB = BC, find the perimeter of the shaded region using calculator π.
(Leave your answer correct to 2 decimal places)



Ans: _____ cm

Questions 6 to 18, show your working clearly in the space provided for each question and write your answers in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question.

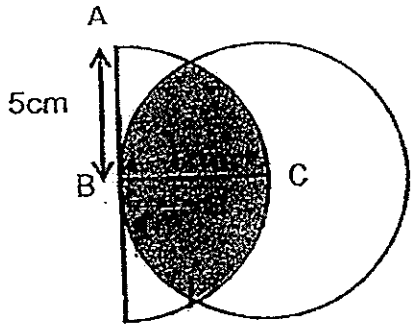
(50 marks)

Do not in this s

6. Samuel had some money. He spent 20% of it on a book. He then bought a bag which cost \$57 more than the book. He had \$75 left. What percentage of his money was spent on the bag? (Leave your answer correct to 2 decimal places)

Ans: _____ [3m]

7. The figure (not drawn to scale) shows a semi-circle and a circle of radius 5 cm. AB = BC = 5cm. Area of the shaded part is 33cm². Find the area of the figure. (Take $\pi = 3.14$)



Ans: _____ [3m]

8. Team B had 12 fewer players than Team A. When 3 players from Team B were transferred to Team A, Team A had 3 times as many players as Team B.

(a) How many players were in Team A at first?

(b) How many players were in Team B at first?

Do not write in this space

Ans: (a)_____[2m]

(b)_____[1m]

9. Two years ago, Rajah was n years old. His brother was twice his age then.

(a) What was their total age 2 years ago?

(b) What is their total age now?

(c) What will be their total age 3 years from now?

Express all your answers in terms of n.

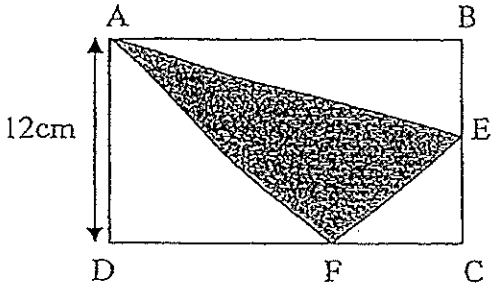
Do not write in this space

Ans: (a) _____ [1m]

(b) _____ [1m]

(c) _____ [1m]

10. The figure below (not drawn to scale) shows rectangle ABCD. ADF and CEF are isoceles triangles. Given that BE = CE, find the area of the shaded triangle.



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in this spa

Ans:_____[3m]

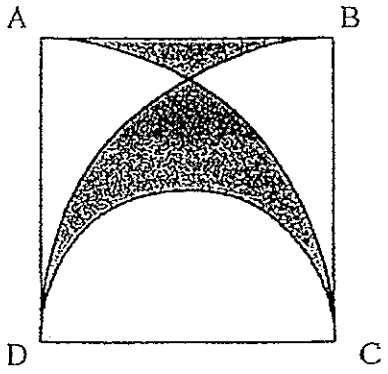
Do not write in this space

11. Peter and Dew had some stamps in the ratio of 5 : 7. After both of them used up 22 stamps each, the ratio became 2 : 5. How many stamps did Peter have at first?

Ans:_____ [4m]

12. In the figure below (not drawn to scale), the square ABCD has sides of 10 cm. There is a semi-circle and two quadrants drawn in it. Find the perimeter of the shaded figure below. (Take $\pi = 3.14$)

Do not write in this space



Ans: _____ [4m]

13. Alice has 93 coins in her piggy bank that contains only \$1 and 20¢ coins. She has counted her coins and they added up to \$62.60 altogether. How many \$1 coins does Alice have?

Do not write in this space

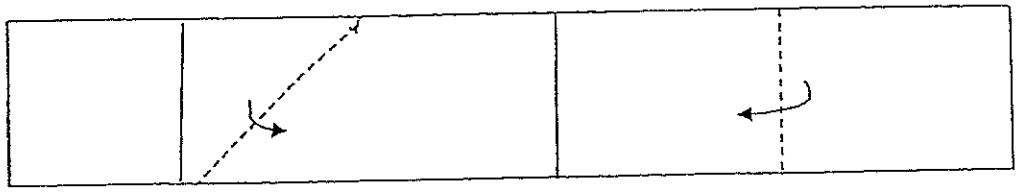
Ans: _____ [4m]

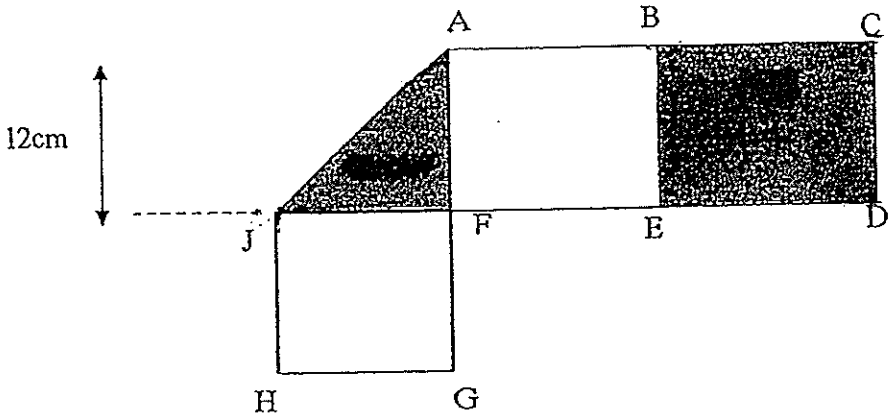
14. At a gift shop, the number of \$2 gift packs, \$5 gift packs and \$10 gift packs were in the ratio of 16 : 9 : 7 $\frac{1}{8}$ of the \$2 gift packs and 34 of the \$5 gift packs were sold. The remaining gift packs were worth \$1975. How many of the \$10 gift packs were there?

Do not write in this space

Ans:_____[4m]

15. A rectangular piece of paper (not drawn to scale) was folded along the dotted lines to form the figure as shown below. FGHJ is a square, AJF is a triangle and ABEF is a rectangle. AF = 12cm. F is the midpoint of AG. The ratio area of the shaded triangle AFJ to the shaded rectangle BCDE to the rectangular piece of paper is 2 : 3 : 24. Find the area of rectangle ABEF





Ans:_____

16. A bookstore offered a discount of \$15 for every \$100 spent. If the total spending exceeds \$200, an additional discount of 7% is given.

(a) Ahmad bought \$248 worth of books from the bookstore. How much did he pay after the discount?

(b) Dave paid \$192.60 for some books inclusive of GST of 7%. What was the price without GST?

Do not write in this space

Ans: (a)_____[3m]

(b)_____[2m]

17. Joy and Hassan had a collection of 240 magnets at first. Then Hassan borrowed $\frac{1}{5}$ of the number of magnets that Joy had. Later, Hassan lent out $\frac{1}{4}$ of the number of magnets that he had to Joy. Finally, Joy gave 40 magnets to Hassan. In the end, Joy had 26 magnets fewer than Hassan. How many magnets did Hassan have at first?

Do not write in this space

Ans:_____ [5m]

18. Anna and Bella had a total of 330 coloured papers. Bella had 20 more coloured papers than Anna. Anna used 3 times as many coloured papers Bella and was left with half the amount of coloured papers that Bella had left

(a) How many coloured papers did Bella have at the beginning?

(b) How many coloured papers did Anna have at last?

Ans: (a)_____[

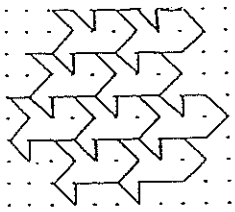
(b)_____[

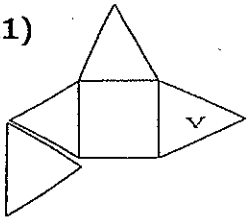
End of Paper

ANSWER SHEET

EXAM PAPER 2014
SCHOOL : ROSYTH
PRIMARY : P6
SUBJECT : MATHEMATICS
TERM : CA1

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
1	3	2	1	2	4	4	1	4	2	3	2	4	3	2

16)253108 **17)4875** **18)22%** **19)**  **20)2**

21) 

22)13 1/3 **23)26**

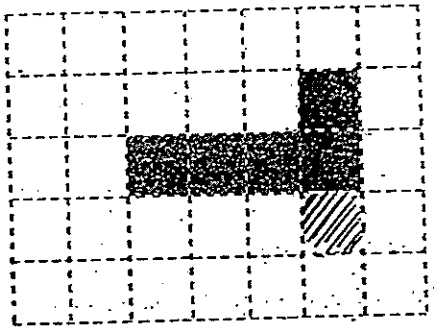
24)60 **25)Friday**

26)27.57℃ **27)60 kg**

28)28y – 8 **29)15 cm2** **30)16Π - 32**

Paper 2
1)6 : 5

2)12/16 = 6/8 = ¾

3) 

4)3 x 1 = 3
3÷2 = 1.5
2 x 1 = 2
2÷2 = 1
1.5 + 1 = 2.5 cm^2

5)½ ∏ x 16 = 25.13
½ x ∏ x 8 = 12.57
25.13 + 12.57 + 8 = 45.70 cm

6)57 + 75 = $132
60% →132
1% →132÷60 = 2.2
20% →2.2 x 20 = $44
44 + 57 = 101
100% →2.2 x 100 = 220
101/220 x 100 = 45.91%

7)area of 1△ + ○
→ ½ ○ + 1 ○
= 1½ ○
=3/2 x 3.14 x 5 x 5
=117.75
117.75 – 33 = 84.75

8)3+ 3 + 12 = 18
1u→18÷2 = 9
At first → 9 + 3 + 12 = 24
a) is 24
b) is 12

9)a)n+n+n = 3n
b)n+2+2n+2 = 3n+4
c)3n+4+3+3 =3n+10

10) 18 x 12 = 216
A→½ x 12 x 12 = 72
B→½ x 18 x 6 = 54
C→½ x 6 x 6 = 18
72 + 54 + 18 = 144
216 – 144 = 72 cm^2

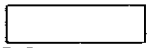
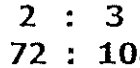
11)11u→22
1u→22÷2 = 2
15u→2 x 15 = 30

12)½ x 3.14 x 10 = 15.7
¼ x 3.14 x 20 = 15.7
10 cm+ (15.7 x 3) = 57.1 cm

13)93 x 0.20 = 18.60
Difference→$(62.60) – 18.60 = 44.00
Difference→$1.00÷0.20 = $0.80
No of $1 coin→$44.00÷0.80 = 55

14)$2 : $5 : $10
16 : 9 : 7

1/8 of $2→1/8 x 16 = 2
14 : 9 : 7
Value→28 : 45 : 70
28+ 45 + 70 = 143 units
Total value→$(1975÷(34 x 5) = 2145
1u→$15
Value of $10 packs→70u→$1050
No. of $10 gift packs→$1050÷$10 = 105

15)Area of □→12 x 12 = 144
Area of △→½ x 12 x 12 = 72
AFJ : BCDE: 
2 : 3 : 24
72 : 108 : 864
2u→72
1u→72÷2 = 36
3u→36 x 3 = 108
 36 x 24 = 864

864 – 144 – 72 – 72 – 108 – 108 = 360 cm^2

16)a)15 x 2 = 30
248 – 30 = 218
0.07 x 2.18 = 15.26
Total discount→30+15.26 = 45.26
Final price→246 – 45.26 = $202.74

16)b)107% →192.60
1% →1.80
100% →$180

17)

	Joy	Hassan
In the end	(240 – 25) ÷2 = 107	270 – 107 = 133
Joy gave 40 magnet to Hassan	107÷40 = 147	133 – 40 = 93
Hassan lent ¼ on his magnet to Joy	147 – 31 = 116	3u→93 1u→31 4u→124
Hassan borrowed 1/5 of Joy magnet	4u→116 1u→29 5u→545	129 – 29 = 95

18)a)2u + 20→330
1u→155
Stella at first→155÷20 = 175
b)5u + 40 = 175
Anna at last→2u + 20
2u + 20→54 + 20 = 74

Anglo-Chinese School (Primary)

MID-YEAR EXAMINATION 2014
MATHEMATICS
PAPER 1 (BOOKLET A)
PRIMARY SIX

Name: _____ ( ) Class: Primary 6 ___

Date: 9 May 2014 Duration of Booklets A & B: 50 min

INSTRUCTIONS TO CANDIDATES

1. This question paper consists of 7 printed pages, including the cover page.
2. Do not turn this page until you are told to do so.
3. Follow all instructions carefully.
4. Shade your answers on the Optical Answer Sheet (OAS) provided.
5. You are not allowed to use a calculator.

Questions **1** to **10** carry 1 mark each. Question **11** to **15** carry 2 marks each. Make your choice (1, 2, 3 or 4). Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet (OAS). (20 marks)

1. 6 hundreds, 8 tenths and 2 thousandths is _____.

   1) 680.002
   2) 600.802
   3) 600.280
   4) 600.082

2. Keith weighs 30 kg. He weighs $\frac{5}{6}$ of his sister's mass.
   Find his sister's mass.

   1) 6 kg
   2) 25 kg
   3) 36 kg
   4) 66 kg

3. Derrick, Eugene and Fay share 25 sweets. Derrick gets n sweets less than Eugene and Fay gets $2n$ sweets less than Eugene. How many sweets does Fay get?

   1) 25 - 3n
   2) 25 - 2n
   3) $(\frac{25-2n}{3})$
   4) $(\frac{25-3n}{3})$

4. Alan is paid $48 for working 8 hours. At this rate, how many hours must he work to earn $576?

1) 12
2) 72
3) 78
4) 96

5. The table below shows the charges for bicycle rental at the Blue Coast Park.

Bicycle for Rental at the Blue Coast Park	
For the first hour	$3.00
For every additional $\frac{1}{2}$- hour or part thereof	$1.20

David rented a bicycle from 9 a.m. to 12.30 p.m. How much did he pay?

1) $4.20
2) $9
3) $10.20
4) $12

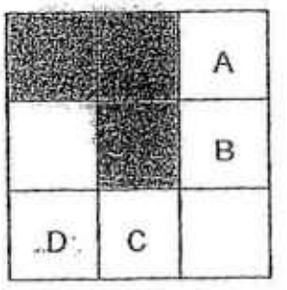
6. John took 3 hours and 45 minutes to travel from Town A to Town B. He reached Town B at 2.05 p.m. What time did he leave Town A?

1) 10.20 a.m.
2) 11.05 a.m.
3) 1.40 p.m.
4) 5.50 p.m.

7. A water tank was $\frac{2}{5}$ full. When another 800 cm^3 of water was poured into the tank, it became $\frac{2}{3}$ full. Find the capacity of the tank.

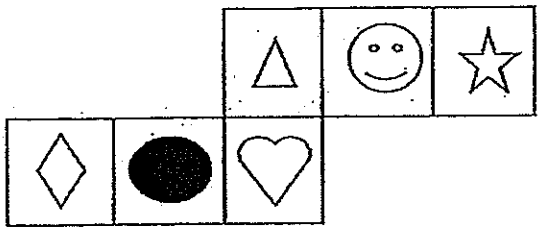
1) 400
2) 600
3) 2 000
4) 3 000

8. Which square must be shaded so that the figure has a line of symmetry?



1) A
2) B
3) C
4) D

9. The figure below shows a cube and its net. Each face of the cube has been labelled on the net. Which face is opposite face ?



1)

2)

3)

4)

10. Mr Lee travelled at an average speed of 90 km/h from Town A to Town B. It took him 3 hours to complete his journey. How long would it take Mr Lee to complete the same journey if he decreased his speed by 30 km/h?

1) 1.5 h
2) 4.5 h
3) 7.5 h
4) 9 h

11. Sarah spent an equal amount of money on 7 pencils and 9 erasers. Each pencil costs 20 cents more than an eraser. How much did Sarah spend altogether?

1) $4.90
2) $6.30
3) $11.20
4) $12.60

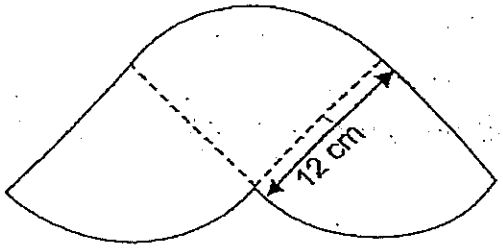
12. The average savings of 3 girls, Clara, Dolly and Eunice was $220. Clara had $60 more than Dolly. The total savings of Clara and Dolly was the same as the savings of Eunice. What was Clara's savings?

1) $135
2) $195
3) $240
4) $300

13. Darius had 220 stamps in his collection of which 25% were from Singapore. How many Singapore stamps must his sister give him to increase the number of Singapore stamps in his collection to 45%?

1) 30
2) 55
3) 80
4) 99

14. The figure below, not drawn to scale, is made up of three identical quarter circles of radii 12 cm. Find its area in terms of π.



1) $(18\pi + 22)$ cm^2
2) $(24\pi + 22)$ cm^2
3) (108π) cm^2
4) (144π) cm^2

15. Last year, the ratio of the number of boys to the number of girls in a reading club was 2 : 3. This year, 30 girls join the club and the ratio of boys to girls is now 4 : 9. How many members were there in the reading club last year?

1) 15
2) 26
3) 100
4) 130

Anglo-Chinese School (Primary)

MID-YEAR EXAMINATION 2014
MATHEMATICS
PAPER 1 (BOOKLET B)
PRIMARY SIX

Name: _____ ( ) Class: Primary 6 ___

Date: 9 May 2014 Duration of Paper Booklets A & B: 50 min

_____
Parent's/Guardian's signature

INSTRUCTIONS TO CANDIDATES

1. This question paper consists of 7 printed pages, including the cover page.
2. Do not turn this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. You are not allowed to use a calculator.

Section	Maximum Marks	Marks Obtained
Paper 1 Booklet A. Multiple-Choice Questions	20	
Paper 1 Booklet B. Short Answers: Part 1	10	
Paper 1 Booklet B. Short Answers: Part 2	10	
Total Marks	40	

Questions **16** to **25** carry 1 mark each. Write your answers in the spaces provided. Give your answers to the units stated and to its simplest form whenever necessary. (10 marks)

16. A photocopier can print 40 pages in 30 seconds. How long does it take to print 280 pages? Express your answer in minutes.

Answer: _____ min

17. During the Chinese New Year promotion at the Bird Park, every 7th visitor was given a free admission ticket. How many free admission tickets were given to a group of 80 visitors?

Answer: _____

18. Biscuit tins in XYZ supermarket were arranged on 20 shelves with an equal number of biscuit tins on each shelf. 4 shelves were removed and the biscuit tins on these shelves were re-arranged on the remaining 16 shelves. Due to this, the number of biscuit tins on each remaining shelf increased by 5.
What was the number of biscuit tins on each shelf at first?

Answer: _____

19. A square and a rectangle have the same area. If the rectangle has a length of 12 cm and a breadth of 3 cm, what is the perimeter of the square?

Answer: _____ cm

20. In a competition, Benson cycled for 5 km at the rate of 12 km/h and ran for 3 km at the rate of 9 km/h. How long did he take to complete the race? Express your answer in minutes.

Answer: _____ min

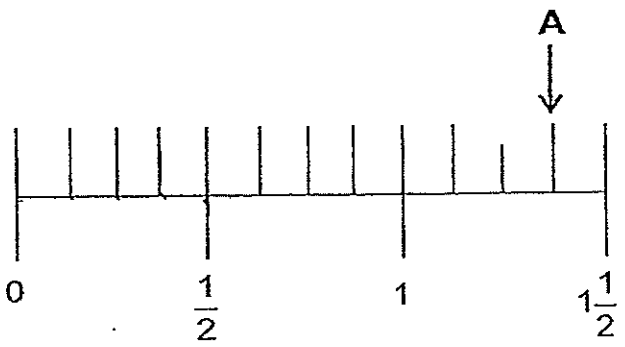
21. The length of a rectangle is 2y. It is 3 cm longer than its breadth. Express the perimeter of the rectangle in terms of y.

Answer: _____ cm

22. Danny has 48 stamps. He gave $\frac{1}{4}$ of his stamps to Elise and 21 stamps to Fred. How many stamps does Danny have left?

Answer: _____

23. Write down the fraction represented by the letter A.



Answer: _____

24. The ratio of the length of a rectangle to its breadth is 5 : 3. If the difference between the length and the breadth is 6 cm, find the area of the rectangle.

Answer: _____ cm^2

25. A van left Town M to Town N at 10.10 p.m. on Monday night. It reached Town N at 8.35 a.m. the next morning. How long did the van take to travel from Town M to Town N?

Answer: _____ h _____ min

Questions **26** to **30** carry 2 marks each. Show all mathematical statements clearly in the space below each question and write your answers in the spaces provided. Give your answers to the units stated and to its simplest form whenever necessary. (10 marks)

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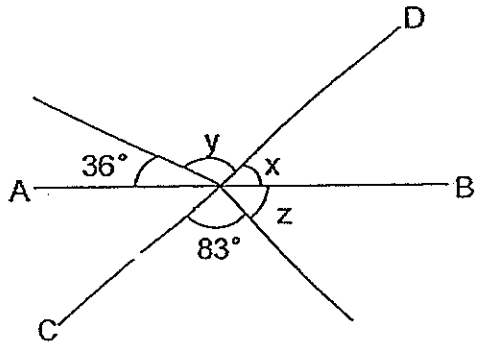
26. The diagram below is not drawn to scale. AB and CD are straight lines. Given that $\angle x$ is half of $\angle y$, find the value of $\angle z$.



Answer: _____ °

27. The ratio of the number of stamps Dex has to the number of stamps Ethan has is 7 : 3. If Dex gives 10 stamps to Ethan, both will have an equal number of stamps. Find the total number of stamps the boys had.

Answer: _____

28. A rectangular container measures 30 cm by 50 cm by 20 cm. Melvin uses a 600 cm^3 cup to fill the container completely with water. How many full cups must he pour into the container before he can fill the container completely?

Answer : _____

29. The table below shows the mass of four boys. Whose mass is nearest to their average mass?

Name of boy	Mass (in kg)
Allen	23
Benny	25
Carl	32
Dennis	36

Answer : _____

30. $\frac{7}{12}$ m of ribbon is cut into shorter pieces. Each of the shorter pieces must measure $\frac{1}{6}$ m. What is the length of the remaining piece?

Answer : _____ m

Anglo-Chinese School (Primary)

MID-YEAR EXAMINATION 2014
MATHEMATICS
PAPER 2
PRIMARY SIX

Name: _____ ( ) Class: Primary 6 ____

Date: 9 May 2014 Duration of Paper 2: 1h 40min

_____
Parent's/Guardian's signature

INSTRUCTIONS TO CANDIDATES

1. This question paper consists of 15 printed pages, including the cover page.
2. Do not turn this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. You are allowed to use a calculator.

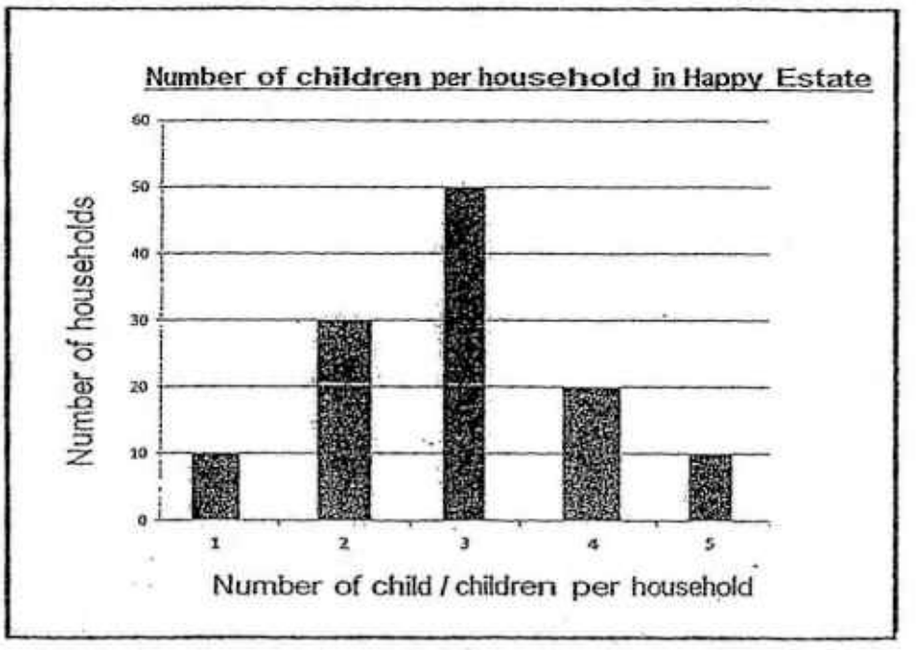
Section	Maximum Marks	Marks Obtained
Paper 2 Section A. Short Answers	10	
Paper 2 Section B. Problem Sums	50	
Total Marks	60	

Questions 1 to 5 carry 2 marks each. Show your mathematical statements clearly in the space provided for each question and write your answers in the spaces provided. Give your answers to the units stated and to its simplest form whenever necessary. (10 marks)

1. Paul and Jonathan had 175 and 117 marbles respectively. After each of them gave away an equal number of marbles to Linda, Paul found that he had thrice as many marbles as Jonathan. How many marbles were given to Linda?

Answer: _____

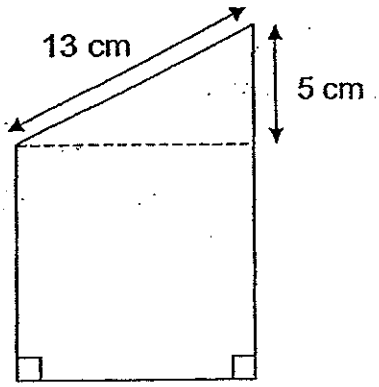
2. A survey was carried out on the households with children in Happy Estate. The bar graph shows the number of children each household has in the estate.



What fraction of the households has more than 3 children?

Answer: _____

3. The figure given below, not drawn to scale, is made up of a square and a right-angled triangle. Its perimeter is 54 cm.
Find the area of the figure.



Answer: _____ cm^2

4. Mrs Lim had a bag of rice. Her family ate an equal amount of rice each day. After 3 days, she had $\frac{4}{5}$ of the rice left. After another 8 days, she had 8 kg of rice left. How much rice was in the bag at first?

Answer: _____ kg

5. A box weighs 19.5 kg when it is filled with 15 identical books. The same box weighs 7 kg when it is filled with 5 identical books . What is the mass of the empty box?

Answer: _____ kg

For questions **6** to **18**, show your steps clearly in the space provided for each question and write your answers in the spaces provided.
For questions which require units, give your answers in the units stated.
The number of marks available is shown in brackets [ ] at the end of each question or part-question. (50 marks)

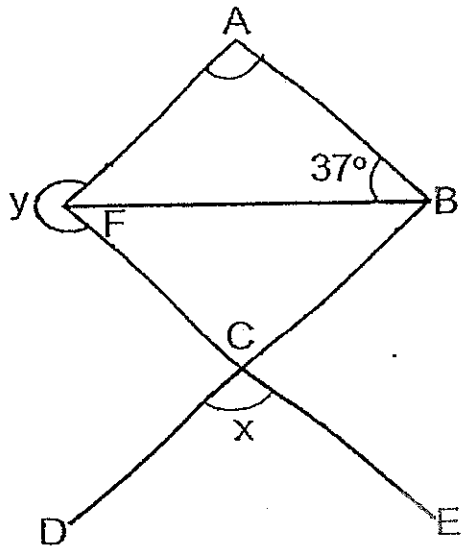
6. Rachel, Sandra and Tiffany went shopping together. Rachel spent 30% more than Sandra. Tiffany spent 18% less than Sandra. If Tiffany spent \$574, find the total amount of money the three girls spent altogether.

Answer: _____ [3]

7. In the figure below, not drawn to scale, BCD and FCE are straight lines. ABCF is a rhombus and $\angle ABF = 37°$.

(a) Find $\angle x$.

(b) Find $\angle y$.



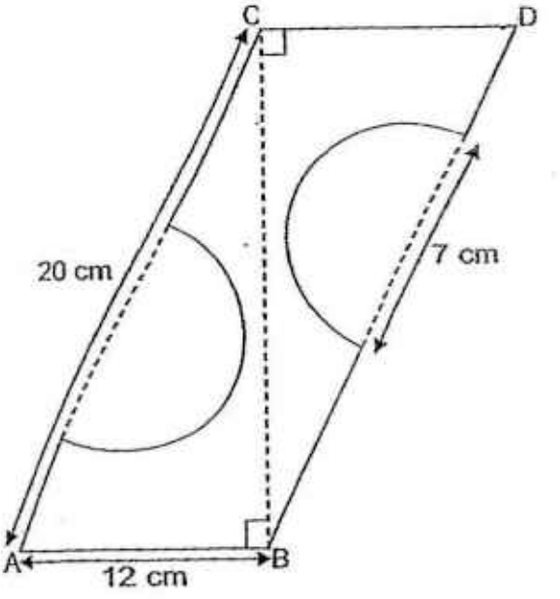
Answer: (a) _____ [2]

(b) _____ [1]

8. Jeremy's savings was $\frac{2}{7}$ less than Keith's. After Jeremy had given \$224 to Keith, the amount of savings Jeremy had left is $\frac{3}{7}$ of Keith's money. Find the total amount of savings of the two boys.

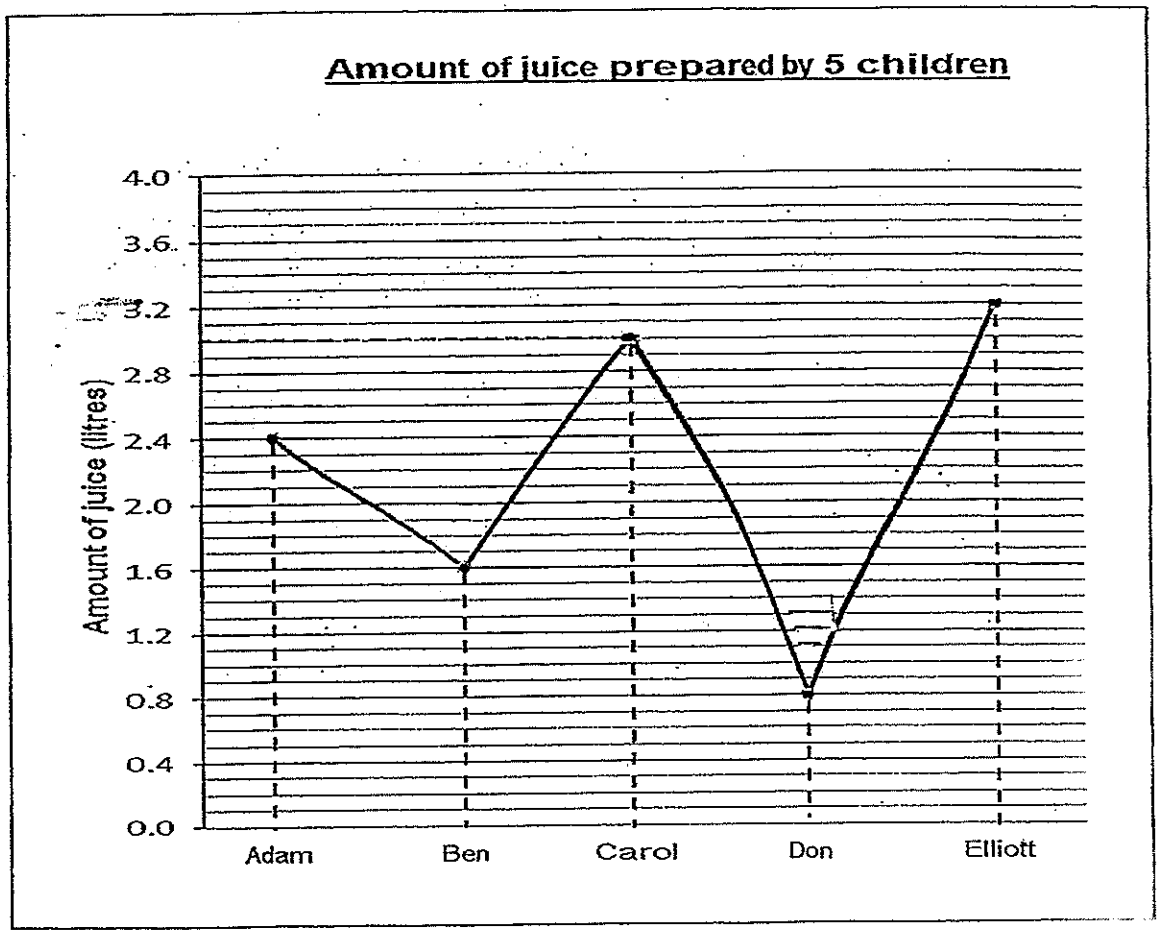
Answer: _____ [3]

9. The figure below shows a piece of piece of paper made up of two identical right-angled triangles. Two identical semicircles with diameter 7 cm are cut from it. Find the perimeter of the remaining piece of paper. (Take $\pi = \frac{22}{7}$)



Answer: _____ [3]

10. The line graph shows the amount of juice prepared by five children.



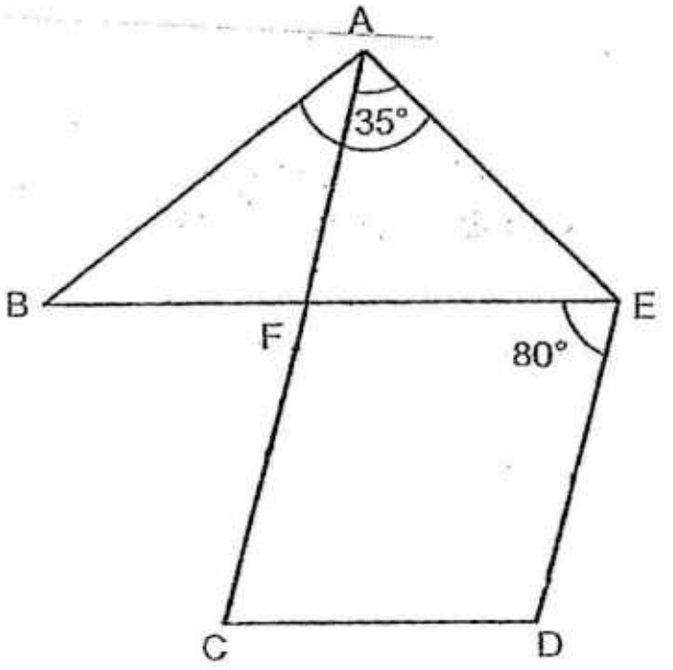
(a) Who made half as much juice as Ben?

Answer: (a) _____ [1]

(b) What percentage of the total amount of juice is made by Carol?
Give your answer correct to the nearest one percent.

Answer: (b) _____ [2]

11. In the figure below, not drawn to scale, AC is parallel to ED and BF = AF. BFE is a straight line. CDEF is a parallelogram, $\angle DEF = 80°$ and $\angle EAF = 35°$. Find $\angle BAE$.



Answer: _____ [3]

12. The table below shows the daily wages of Clark.

Day of the Week	Daily Wage
Monday to Friday	$y per day
Saturday	$(2y + 5)
Sunday	$(5y - 1)

Clark works from 6th March (Thursday) to 12th March (Wednesday).

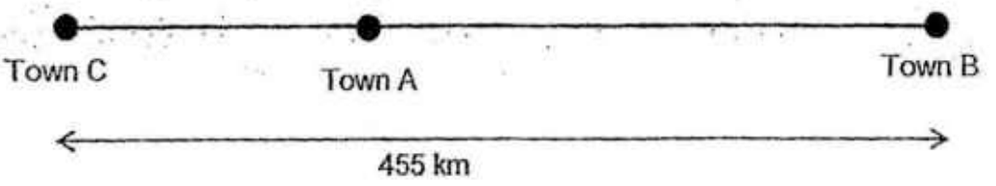
(a) How much is Clark's wages for this period?

(b) If y = 12, how much more money will Clark earn on a Sunday than on a Saturday?

Answer: (a) _____ [2]

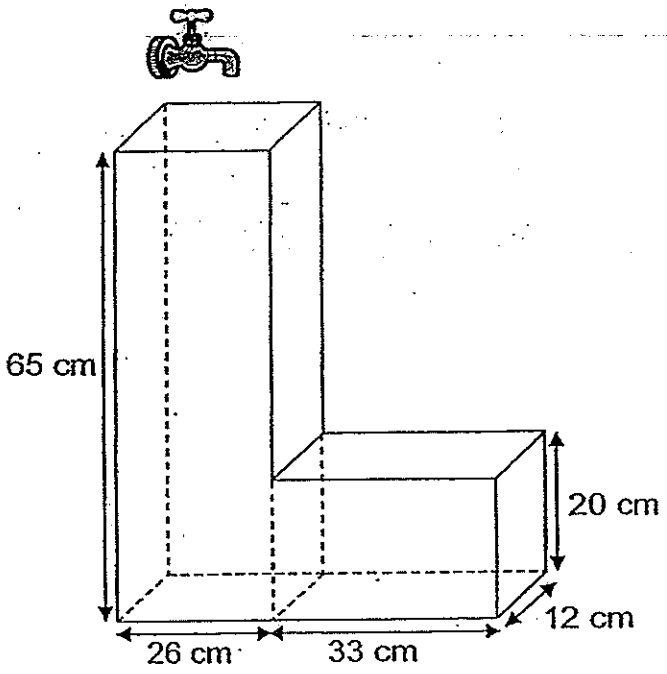
(b) _____ [2]

13. At 08 00, a car left Town A and travelled towards Town B at 85 km/h. At the same time, a lorry left Town A and travelled in the opposite direction towards Town C. When the lorry reached Town C at 11 00, the car was 20 km away from Town B. If Town B and Town C were 455 km apart, find the speed of the lorry.



Answer : _____ [4]

14. The figure below, not drawn to scale, shows an empty water tank. At 8.55 a.m., it is filled with water from a running tap with water running at a rate of 1.41 litres per minute.
At what time will the water tank be completely filled with water?



Answer : _____[4]

15. $\frac{2}{5}$ of the female members and $\frac{3}{4}$ of the male members in Cookery Club took part in the cake baking competition. Each female participant baked 4 cakes while each male participant baked 3 cakes. A total of 212 cakes were baked. How many members did not take part in the baking competition if 104 cakes were baked by the female participants?

Answer : _____ [5]

16. Mr Tang and Mr Low went to an electronic shop. At the shop, the home sound system was priced at $5 690.

(a) If Mr Tang bought the home sound system with full cash payment, he will be given a discount of 12%. How much did Mr Tang pay for the home sound system?

(b) If Mr Low made a deposit of $800 and paid the remaining amount in 12 monthly installments, how much was Mr Low's monthly installment?

Answer: (a) _____ [2]

(b) _____ [3]

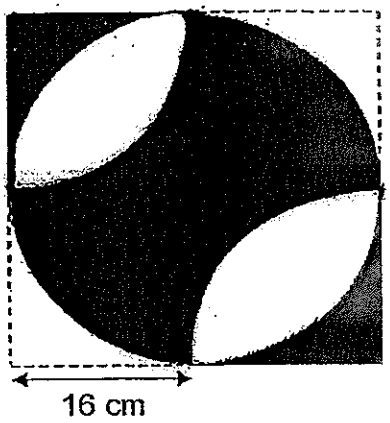
17. Noah spent $\frac{1}{3}$ of his money and an additional \$200 on a camera. Then he spent $\frac{3}{4}$ of his remaining money and an additional \$75 on a watch. Then he spent $\frac{2}{5}$ of his remaining money and an additional \$24 on a bag. If Noah had \$273 left, how much more money did he spend on the watch than on the camera?

Answer : _____ [5]

18. The figure is made up of 6 identical quarter circles.
The radius of each quarter circle is 16 cm.
Taking $\pi = 3.14$, find

(a) the area of the shaded area.

(b) the perimeter of the shaded area.



Answer: (a) _____ [3]

(b) _____ [2]

End of Paper 2

ANSWER SHEET

EXAM PAPER 2014
SCHOOL : ACS
SUBJECT : PRIMARY 6 MATHEMATICS

TERM : SA1

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
2	3	4	4	2	1	4	1	2	2	4	2	3	3	3

16)3.5 **17)11** **18)20** **19)24 cm** **20)45 min**

21)(8y – 6) cm **22)15 stamps** **23)1 3/8** **24)135 cm^2**

25)10 h 25 min **26)49°** **27)50 stamps** **28)50**

29)Carl **30)1/12 m**

Paper 2

1)175 – 117 = 58
58 ÷ 2 = 29
29 x 3 = 87
175 – 87 = 88
88 x 2 = 176 marbles.

2)10 + 30 + 50 + 20 + 10 =120
20 + 10 = 30
30/120 = ¼

3)54 – (13 + 5) = 36
36 ÷ 3 = 12
½ x 12 x 5 = 30
12 x 12 = 144
144 + 30 = 174 cm^2

4)4/15→ 8 kg
1/15→2 kg
15/15→ 30 kg

5)1 box + 15 bks →19.5 kg
1 box + 5 bks →7 kg
10 bks→19.5 – 7 = 12.5
12.5 ÷ 10 = 1.25
1 box + (1.25 x 5) = 7
1 box = 7 – (1.25 x 5) = 0.75

6)82% →574/321% →574/82 x 312
= $2184

7)a)37° x 2 = 74°
360° – 74° – 74° = 212°
212° /2 = 106°
b)360° – 74 = 286°

8)14u→224
120u→224/14 = $1920

9)Cir of 1 circle = ∏D
=22/7 x 7 = 22 cm
22 + 13 x 2 + 12 x 2 = 72 cm

10)a)Don
b)2.4 + 1.6 +3 + 0.8 + 3.2 = 11
11 ÷ 100 = 0.11
3 ÷ 0.11 = 27.27272727
≈27%

11)180° – 100° = 80°
∠BAF = 80° ÷ 2 = 40°
40° + 35° = 75°

12)a)y +2y +5 + 5y – 1 +y + y + y + y = $(12y + 4)
b)2 x 12 = 24
24 + 5 = 29
12 x 5 = 60
60 – 1 = 59
59 – 29 = 30 more

13)800→1100 (3hr)
85 x 3 = 255
255 +20 = 227
455 – 275 = 180
180 ÷3 = 60km/h

14)26 x 12 x 65 = 20280
33 x 12 x 20 = 7920
20280 + 7920 = 28200
28200÷1000 = 28.2
28..2÷1.41 = 20
8.55 am + 20 min = 9.15 am

15)104 ÷4 = 26
26 ÷2 = 13
13 x 3 = 39
212 – 104 = 108
108÷3 = 36
36 ÷3 = 12
12 + 39 = 51 members

16)a)100 – 12 = 88
5690 ÷100 = 56.90
56.90 x 88 = $5007.20
b)5690 – 800 = 4890
4890 ÷12 = $407.50

17)273 + 24 = 297
297/3 x 5 = 495
495 + 75 = 570
570 x 4 = 2280
2280 + 200 = 2480
2480 ÷2 = 1240
1240 + 200 = 1440
570 x 3 + 75 = 1785
1785 – 1440 = $345

18)a)3.14 x 16 x 16 = 803.84

803.84 ÷ 4 = 200.96

½ x 16 x 16 = 128

200.96 – 128 = 72.96

72.96 x 2 = 145.92

145.92 x 2 = 291.84

803.84 – 291.84 = 512

200.96 x 2 = 401.92

401.92 – 291.84 = 110.08

110.08 + 512 = 622.08 cm^2

b)Cir of 1½ circle = ∏D x 1½

= 3.14 x 32 x 1.5 = 150.72

Total perimeter = 150.72 + (16 x 4) = 214.72 cm

CATHOLIC HIGH SCHOOL

PRELIMINARY EXAMINATION 1 2014

MATHEMATICS

PRIMARY 6

PAPER 1

(BOOKLET A)

Name :_____( )

Class: Primary 6 _____

Date: 20 May 2014

Total Time for Booklets A and B: 50 min

15 questions

20 marks

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.

Follow all instructions carefully.

Answer all questions.

Shade your answers in the Optical Answer Sheet (OAS) provided.

The use of calculators is **NOT** allowed.

Booklet A and B consist of 13 printed pages.

Questions **1** to **10** carry **1 mark** each. Questions **11** to **15** carry **2 marks** each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the oval (1, 2, 3 or 4) on the Optical Answer Sheet. All diagrams are not drawn to scale. (20 marks)

---

1. Which one of the following numbers is the smallest?

   (1) 0.304

   (2) 0.034

   (3) 0.403

   (4) 0.043

---

2. Which one of the following is the best estimate for 39.6×20.4?

   (1) 39×20

   (2) 39×21

   (3) 40×20

   (4) 40×21

---

3. Which one of the following fractions is smaller than $\frac{1}{4}$?

   (1) $\frac{3}{5}$

   (2) $\frac{2}{7}$

   (3) $\frac{3}{8}$

   (4) $\frac{2}{9}$

(Go on to the next page)

4. The number of visitors to a tourist attraction last year when rounded off to the nearest thousand is 400 000. Which one of the following is the possible actual number of visitors?

(1) 400 499

(2) 400 900

(3) 401 490

(4) 400 983

---

5. Find the sum of 6 hundreds, 9 tenths and 5 thousandths.

(1) 690.005

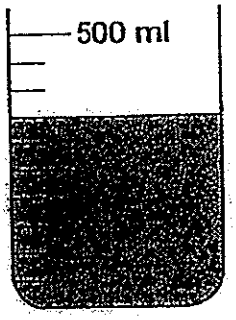
(2) 600 590

(3) 600.905

(4) 600.095

---

6. The container below contained water. What was the volume of the water in the container?



(1) 270 ml

(2) 290 ml

(3) 300 ml

(4) 350 ml

Go on to the next page

7. Express 12 050 grams in kilograms.

(1) 1.205 kg

(2) 12.05 kg

(3) 120.5 kg

(4) 1205 kg

---

8. Sean had a mixture of 20¢, 50¢ and \$1 coins in his wallet. There were 6 coins altogther. Which one of the following could not be the amount of money in Sean's wallet?

(1) \$2.30

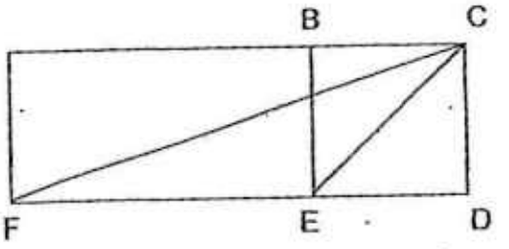
(2) \$2.50

(3) \$2.60

(4) \$2.90

---

9. Rectangle ACDF is made up of a smaller rectangle ABEF and a square BCDE. FCE is a triangle. The ratio of the length of FD to the length of CD is 3 : 1. The area of the square is 50 cm^2. What is the area of the triangle FCE?



(1) 50 cm^2

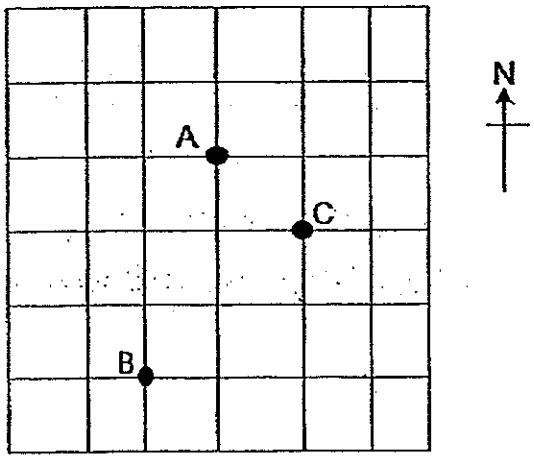
(2) 75 cm^2

(3) 100 cm^2

(4) 125 cm^2

Go on to the next page

10. In the square grid below, A, B and C are three points on the ground. Point A is North-West of C. In what direction is point C from point B?



(1) North-East

(2) North-West

(3) South-East

(4) South-West

---

11. Four different rectangles are used to form a pattern. The first 14 rectangles are shown below. Which rectangle is in the 39th position?

(1)

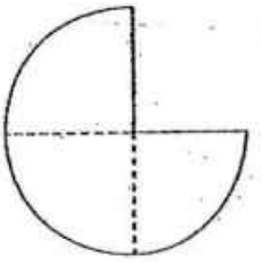
(2)

(3)

(4)

Go on to the next page

12. The figure below is made up of 3 identical quarter circles with a radius of 14 cm. Find the perimeter of the figure.
(Take $\pi = \frac{22}{7}$)



(1) 66 cm

(2) 88 cm

(3) 94 cm

(4) 116 cm

---

13. Mrs Tan had $\frac{5}{7}$ kg of flour to bake some cakes. $\frac{1}{5}$ kg of the flour was used for each cake. How much of the flour was left after Mrs Tan baked the greatest possible number of cakes?

(1) $\frac{1}{7}$ kg

(2) $\frac{4}{7}$ kg

(3) $\frac{4}{35}$ kg

(4) $\frac{18}{35}$ kg

Go on to the next page

14. The table shows the rate of charges for taxi fare during non-peak hours of travel.

Taxi fare	
First 3 km	$2.50
Additional kilometre or part thereof	$0.50

Mrs Wong boarded a taxi and paid $27.50 in taxi fare at the end of her journey. What was the greatest possible distance traveled during non-peak hours?

(1) 50 km

(2) 53 km

(3) 55 km

(4) 58 km

---

15. At an amusement park, the ratio of the number of adults to the number of children was 7 : 6. The ratio of the number of boys to the number of girls was 3 : 1. What was the ratio of the number of boys to the number of adults? Give your answer in the simplest form.

(1) 1 : 7

(2) 3 : 7

(3) 3 : 14

(4) 9 : 14

END OF BOOKLET A

CATHOLIC HIGH SCHOOL

PRELIMINARY EXAMINATION 1 2014

MATHEMATICS

PRIMARY 6

PAPER 1

(BOOKLET B)

Name :_____( )

Class: Primary 6 _____

Date: 20 May 2014

Total Time for Booklets A and B: 50 min

15 questions

20 marks

Booklet A	
Booklet B	
Total	

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.

Follow all instructions carefully.

Answer all questions.

Write your answers in this booklet.

The use of calculators is **NOT** allowed.

Booklet A and B consist of 13 printed pages.

Questions **16** to **25** carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

Do not write in this space.

16. Write two hundred and six thousand and seventy-nine in figures.

Ans:_____

17. Find the value of $70 - (80 - 15) \div 5 + 4$.

Ans:_____

18. Find the value of 3.97×90.
Express the answer in decimal.

Ans:_____

Go on to the next page

19. The average of 5 consecutive whole numbers is 37. What is the greatest whole number?

Do not write in this space.

Ans:_____

20. Express 2.5 as a percentage.

Ans:_____%

21. Find the value of $2k - \frac{3+k}{7}$ when $k = 7$.
Give your answer as a mixed number in the simplest form.

Ans:_____

(Go on to the next page)

Do not write in this space.

22. Kenneth's watch was 8 minutes slow.
He went to a cinema and missed the first 4 minutes of the movie upon arrival. His watch showed 8.32 p.m. when he arrived. What time did the movie start?

Ans:_____p.m.

23. There are white and red roses in a vase. 15 roses are white and 25 roses are red. What fraction of the roses is white?
Give your answer in simplest form.

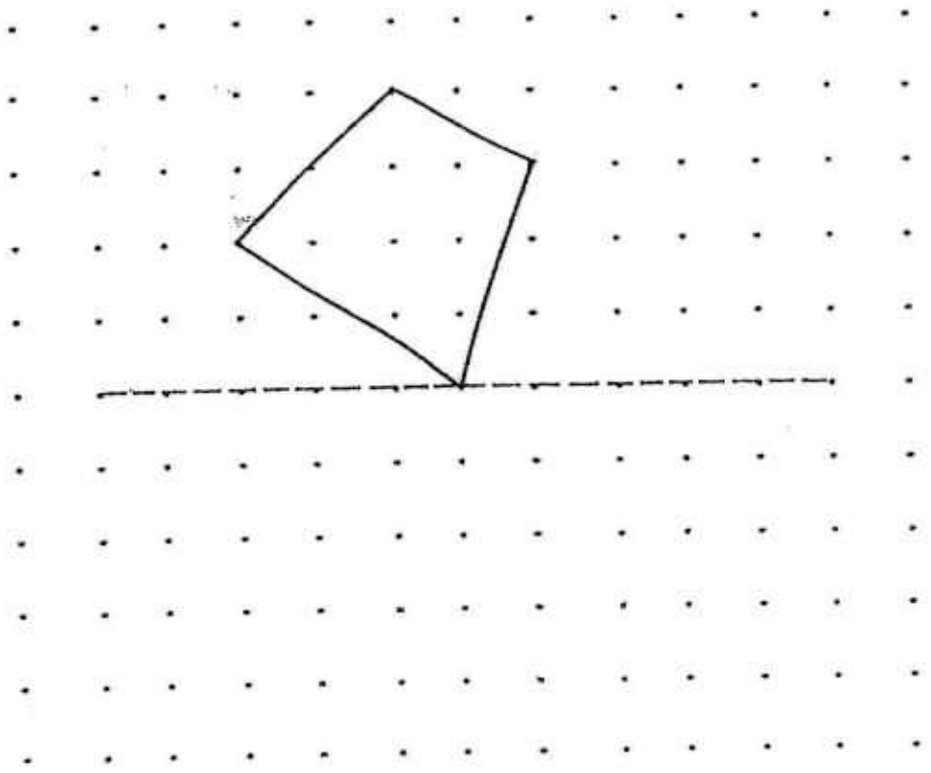
Ans:_____

24. Find the difference in value between $4\frac{1}{2}-\frac{5}{6}$.
Give your answer as a mixed number in simplest form.

Ans:_____

(Go on to the next page)

25. The diagram below shows half of a symmetric figure with the dotted line as its line of symmetry.
Draw the other half of the symmetric figure to complete the symmetric figure.



Total marks for questions 16 to 25

Go on to the next page

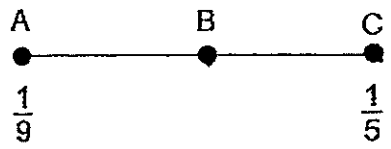
Questions **26** to **30** carry 2 marks each. Show your working and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

Do not write in this space.

26. Find the value of $3 \div 7$ and correct the answer to 2 decimal places.

Ans: _____

27. In the number line below, Point A represents $\frac{1}{9}$, Point C represents $\frac{1}{5}$ and AB = BC. What fraction is represented by Point B?



Ans: _____

Go on to the next page

28. A rectangle has a perimeter of 42 cm. Its length is twice its breadth. Find the breadth of the rectangle.

Do not write in this space.

Ans: _____ cm

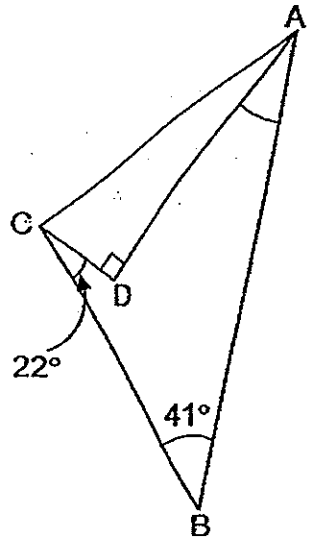
29. Bobby and Ken had some money in the ratio 5 : 3. Bobby had $48 more than Ken. How much did Ken have?

Ans: _____

Go on to the next page

30. In the figure below, ABC and ADC are triangles.
$\angle ADC = 90°$, $\angle ABC = 41°$ and $\angle DCB = 22°$. Find $\angle DAB$.

Do not write in this space.



Ans:_____°

Total marks for questions 26 to 30

END OF BOOKLET B
END OF PAPER 1

CATHOLIC HIGH SCHOOL

PRELIMINARY EXAMINATION 1 2014

MATHEMATICS

PRIMARY 6

PAPER 2

Name : _____ ( )

Class: Primary 6 _____

Date: 20 May 2014

Total Time: 1 h 40 min

Paper 1 Booklet A	20
Paper 1 Booklet B	20
Paper 2	60
Total Marks	100

Parent's Signature: _____

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.

Follow all instructions carefully.

Answer all questions.

Write your answers in this booklet.

The use of an approved calculator is expected, where appropriate.

This booklet consists of 16 printed pages.

Questions **1** to **5** carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. All diagrams are not drawn to scale. (10 marks)

Do not write in this space.

1. Bala did sit-ups for 3 days. On each day, he would do 2 more sit-ups than the previous day. He did y number of sit-ups on the first day. What was the total number of sit-ups he did for the 3 days?
Give your answer in terms of y.

Ans: _____

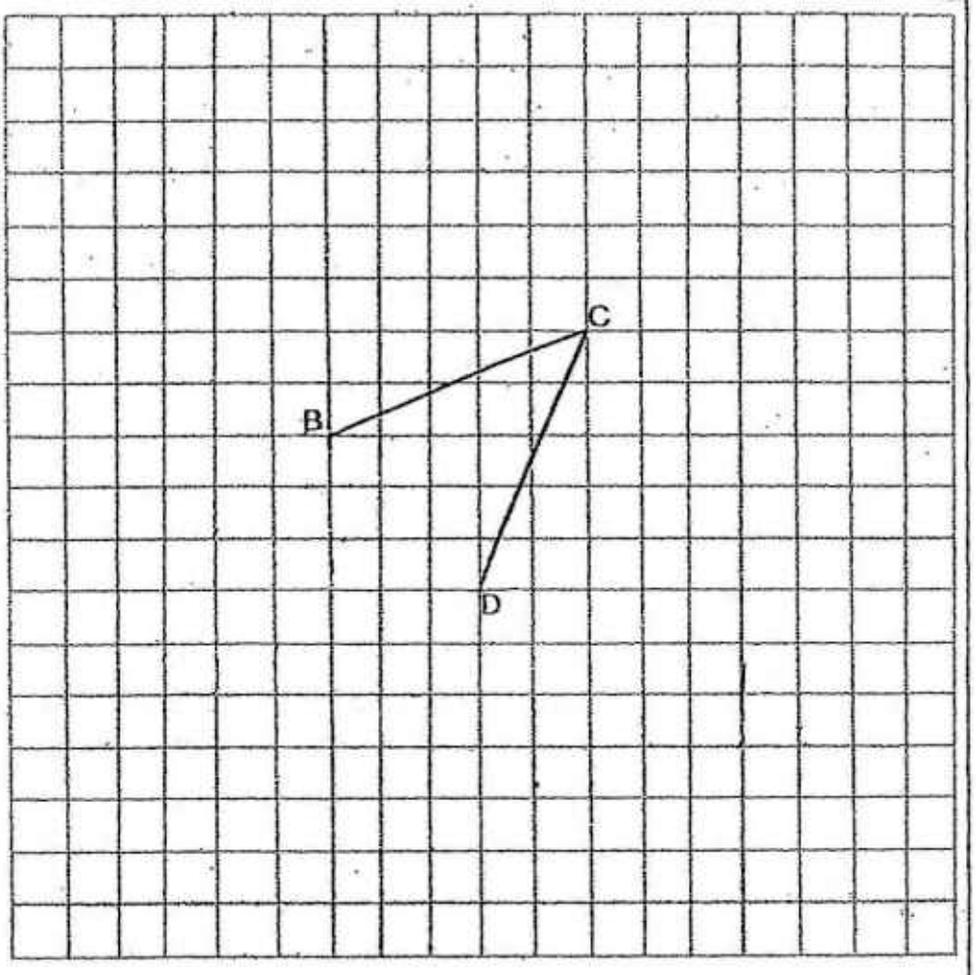
2. Nicholas paid \$240 for a microwave oven after a discount of 40%. What was the price of the microwave oven before the discount?

Ans:\$_____

(Go on to the next page)

3. In the square grid below, BC and CD are sides of a rhombus ABCD. Complete the rhombus by drawing the other two sides in the square grid below.

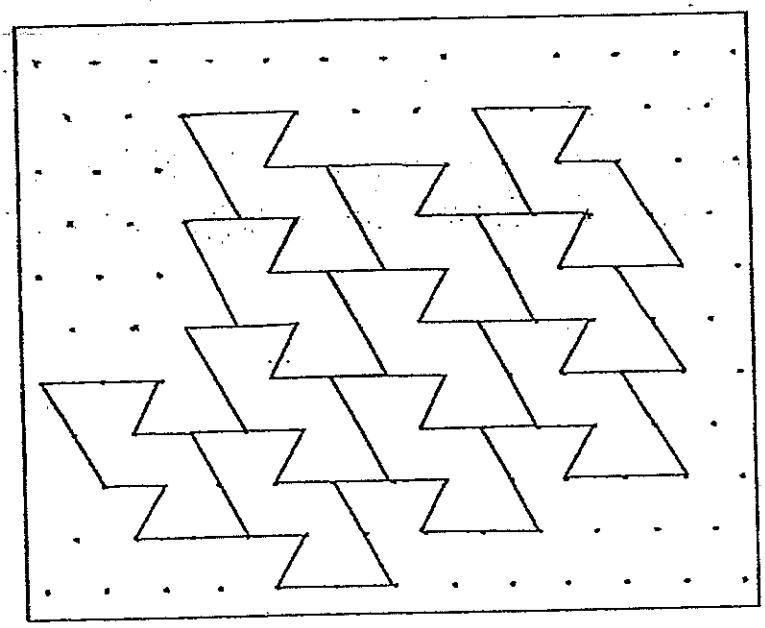
Do not write in this space.



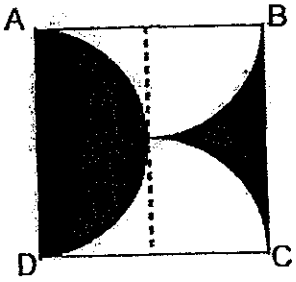
(Go on to the next page)

Do not write in this space.

4. The pattern in the box shows part of a tessellation.
Extend the tessellation by drawing three more unit shapes in the space provided in the box.



5. The figure below is formed by a semicircle, 2 identical quarter circles and lines AB, BC, CD and DA. AB = BC = CD = DA = 60 cm.
What is the total area of the shaded parts?



Ans: _____ cm^2

(Go on to the next page)

For questions **6** to **18**, show your working and write your answers in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question. All diagrams are not drawn to scale. (50 marks)

Do not write in this space.

6. Mrs Wong needed 60 apple pies for a party. How much money would she need to pay for the apple pies at the special promotion?

Special promotion !
Each apple pie costs $4.
Buy 3, get next 2 free

Ans: _____ [3]

(Go on to the next page)

7. There were 369 roses and lilies at a flower shop. After $\frac{2}{5}$ of the roses and $\frac{3}{7}$ of the lilies were sold, there was an equal number of roses and lilies left. How many roses were left?

Do not write in this space.

Ans: _____ [3]

(Go on to the next page)

8. A container with 60 balls in it weighed 980 g. When 10 balls were removed from the container, the container with the remaining balls weighed 855 g. Find the mass of 1 ball.

Do not write in this space.

Ans: _____ [3]

(Go on to the next page)

9. A group of boys had an average number of 42 marbles. One of the boys had wrongly counted his marbles as 35. The correct number of marbles he had should be 53. After re-counting the marbles, the average number of marbles they had increased to 45. How many boys were there in the group?

Do not write in this space.

Ans: _____ [3]

(Go on to the next page)

10. Figure 1 shows a rectangle ABCD.

It is folded along AC to form Figure 2. The area of Figure 2 is $\frac{5}{8}$ of the area of Figure 1. The area of the shaded part in Figure 2 is 36 cm^2. Find the area of rectangle ABCD.

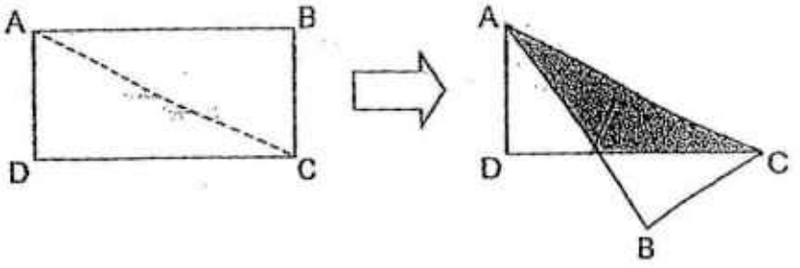


Figure 1 Figure 2

Do not write in this space.

Ans: _____ [3]

(Go on to the next page)

11. The ratio of the number of 20¢ coins to the number of 50¢ coins to the number of $1 coins in a money box is 3 : 5 : 4. The difference in value between the 20¢ coins and the $1 coins is $88.40. How many 50¢ coins are there in the money box?

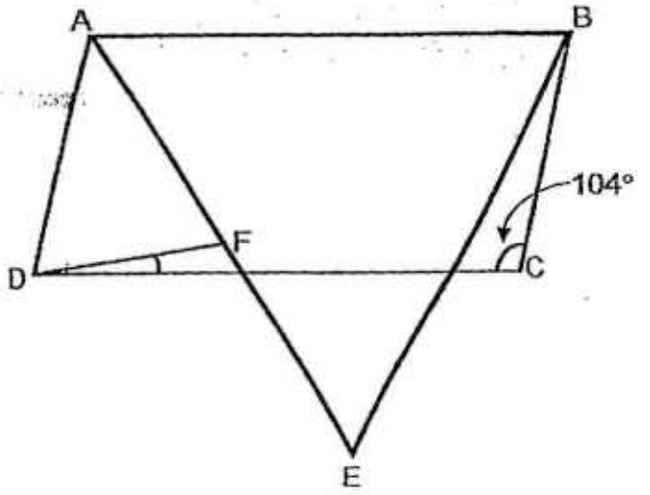
Do not write in this space.

Ans:_____ [4]

(Go on to the next page)

12. In the figure below, ABCD is a parallelogram with length AB twice the length of AD. ABE is an equilateral triangle. F is a point on AE such that AF = FE. ∠BCD is 104°. Find ∠FDC.

Do not write in this space.



Ans: _____ [4]

(Go on to the next page)

13. The ratio of the mass of sugar in packet A to the mass of sugar in packet B is 5 : 6. The mass of sugar in packet A is increased by 30% By what percentage must the mass of sugar in packet B be decreased so that the total mass of sugar in packet A and B remains the same?

Do not write in this space.

Ans: _____ [4]

(Go on to the next page)

14. Mrs Chan baked chocolate, strawberry and vanilla puffs. She baked 132 chocolate puffs. 35% of her puffs were strawberry puffs. She baked 12 more vanilla puffs than strawberry puffs.
How many chocolate puffs and vanilla puffs did Mrs Chan bake altogether?

Do not write in this space.

Ans:_____[4]

(Go on to the next page)

15. Patrick spent 25% of his savings on a bag and 40% of the remainder on a pair of shorts. He was left with $135. How much savings did Patrick have at first?

Do not write in this space.

Ans: _____ [4]

(Go on to the next page)

16. 1 cm square tiles and triangular tiles were used to make some figures. The area of each triangular tile was half that of a square tile. The first four figures are shown below.

Do not write in this space.

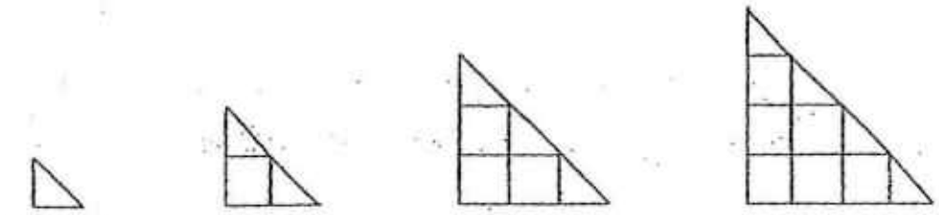


Figure 1 Figure 2 Figure 3 Figure 4

Figure Number	Number of triangles	Number of squares	Area of figure (cm^2)
1	1	0	0.5
2	2	1	2
3	3	3	4.5
4	4	6	8
5	5	10	?

(a) Find the area of Figure 5.

(b) How many squares were used to make a figure with an area of 180.5 cm^2?

Ans : (a)_____ [2]

Ans : (b)_____ [3]

(Go on to the next page)

17. There were 156 more silver balloons than gold balloons at a party. After $\frac{5}{6}$ of the silver balloons and $\frac{3}{4}$ of the gold balloons burst, there were 106 balloons left. How many balloons were there altogether at first?

Do not write in this space.

Ans: _____ [5]

(Go on to the next page)

18. Pens and pencils were sold in packets of 2 pens and packets of 3 pencils respectively. Each packet of pens was sold at \$5 and each packet of pencils was sold at \$0.90. Mrs Chan bought 96 pens and pencils and paid \$134.40. How many pencils did she buy?

Do not write in this space.

Ans:_____ [5]

END OF PAPER.
PLEASE CHECK YOUR WORK CAREFULLY.

ANSWER SHEET

EXAM PAPER 2014
SCHOOL : CATHOLIC HIGH
SUBJECT : PRIMARY 6 MATHEMATICS

TERM : PRELIM 1

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
2	3	4	1	3	4	2	2	1	1	2	3	3	2	4

16)206079

17) $70-(80-15)\div 5+4$
$= 70-65\div 5+4$
$= 70-13+4$
$= 57+4 = 61$

18)357.3

19)35, 36, 37, 38, 39
Average

20) $2.5 \times 100\% = 250\%$

21) $2k-\frac{3+k}{7}$
$=2\times 7-\frac{3+7}{7}$
$= 14-\frac{10}{7}$
$=14-1\frac{3}{7}$

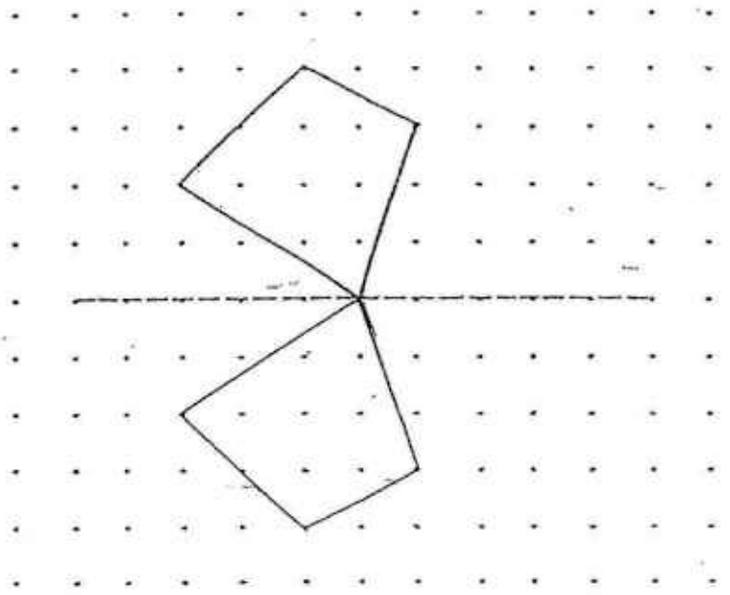
$= 12\frac{4}{7}$

22)8.32 + 8 min – 4 min = 8.36p.m.

23)25 + 15 = 40
15/40 = 3/8

24)4½ - 5/6
=43/6 – 5/6
=39/6 – 5/6
=34/6
=32/3

25)



26)3÷7 = 0.428 ≈0.43

27)1/9 + 1/5
=5/45 + 9/45
=14/45
14/45 ÷ 2/1 = 14/45 x ½ = 7/45

28)L : B
2 : 1

42÷2 = 21
3u→21
1u→21÷3 = 7

29)5 – 3 = 2
2u→$48
3u→48/2 x 3 = $72

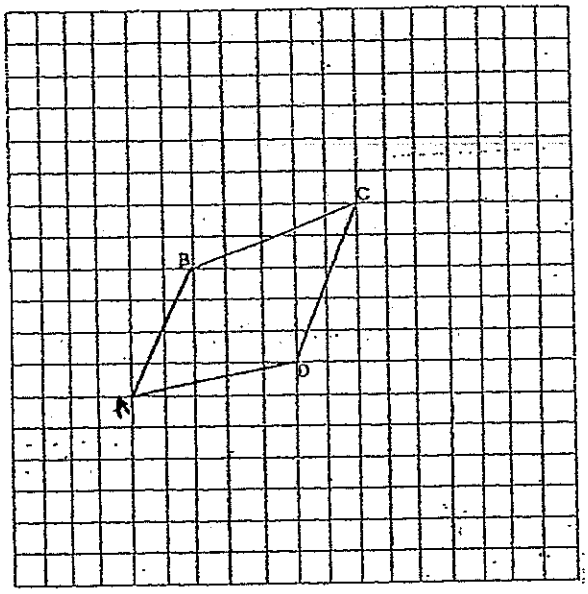
30)180 – 22 – 90 - 41
= 37

Paper 2

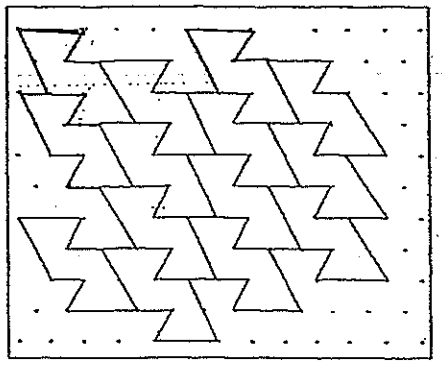
1) $y + y + 2 + y + 4 = 3y + 6$

2) 60% = \$240
100% = \$240/60 x 100 = \$400

3)



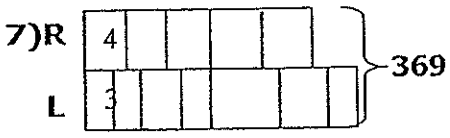
4)



5) $30 \times 60 = 1800 cm^2$

6) 60 ÷ 5 = 12 sets
3 x \$4 = \$12
12 x \$12 = \$144

7)



20u + 21u = 369
41u = 369
12u = 369/41 x 12
= 108 roses

8) 980 – 855 = 125
10 balls = 125g
1 ball = 125/10
=12.5g

9) 53 – 35 = 18
45 – 42 = 3
18 ÷ 3 = 6 boys

10) 8 – 5 = 3
3u = 36
8u = 36/3 x 8
= 96 cm^2

11)3 x 20¢ = 60¢
4 x 100¢ = 400¢
400 – 60 = 340
8840 ÷ 340 = 26 sets
26 x $ = 130

12)104 – 60 = 44
180 – 44 = 136
136 ÷ 2 = 68
180 – 68 – 104 = 8

13) A : B : total
5 : 6 : 11

100 + 30 = 130
130/100 x 5u = 6.5u
11 – 6.5 = 4.5
6 – 4.5 = 1.5
1.5/6 x 100% = 25%

14)100 – 35 – 35 = 30
30% = 132 + 12
30% = 144
65% = 144/30 x 65 = 312

15)100 – 25 = 75
100 – 40 = 60
60/100 x 75 = 45
45% = $135
100% = 135/45 x 100 = $300

16)a)½ x 5 x 5 = 12.5 cm2
b)180.5 x 2 = 361

$\sqrt{361}$ = 19
1 + 2 + 3 +.....18
= 19 x 9 = 171

17)1 – 5/6 = 1/6 = 2/12
1 – ¾ = ¼ = 3/12
1/6 x 156 = 26
2u + 3u +26 = 106
5u = 106 – 26 = 80
24u = 80/5 x 24 = 384
384 + 156 = 540

18)(96 ÷ 2) x $5 = $240
$240 – $134.40 = $105.60
6 pens = 3 x $5 = $15
6 pencils = 2 x $0.90 = $1.80
$15 – $1.80 = $13.20
$105.60 ÷ $13.20 = 8 sets
8 x 6 = 48 pencils

Name : _____ ( )

Class : Primary 6 _____

CHIJ ST NICHOLAS GIRLS' SCHOOL (PRIMARY)

Primary 6

2014 Semestral Assessment One

Mathematics

Paper 1

Booklet A

12 May 2014

Total Time for Booklets A and B : 50 minutes

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.
Follow all instructions carefully.
Answer all questions.
The use of calculators is NOT allowed.

This booklet consists of 7 printed pages including the cover page.

Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the correct oval (1, 2, 3, or 4) on the Optical Answer Sheet.

(20 marks)

---

1. The height of the classroom door in CHIJ St Nicholas Girls' School is about _____.

   1) 1.5 m
   2) 2 m
   3) 3.5 m
   4) 4 m

2. Round off 58.099 to the nearest hundredth.

   1) 58.1
   2) 58.10
   3) 59.1
   4) 59.10

3. 32.07 km is the same as _____ m.

   1) 3 207
   2) 3 270
   3) 32 070
   4) 32 700

4. The sides of a triangle are in the ratio 5 : 12 : 13. Express the perimeter of the triangle as a fraction of the longest side.

1) $\frac{2}{5}$
2) $\frac{13}{30}$
3) $\frac{30}{13}$
4) $\frac{5}{2}$

5. There were as many men as women at a party. $\frac{1}{6}$ of the men and $\frac{1}{3}$ of the women won prizes. What fraction of the people at the party won prizes?

1) $\frac{2}{9}$
2) $\frac{1}{4}$
3) $\frac{1}{2}$
4) $\frac{3}{4}$

6. If every 4 mangoes cost \$ $8a$, what is the cost of 12 such mangoes?

1) \$ $2a$
2) \$ $24a$
3) \$ $32a$
4) \$ $96a$

7. The average of 4 numbers is 18. Three of the numbers are 12, 18 and 27. What is the 4th number?

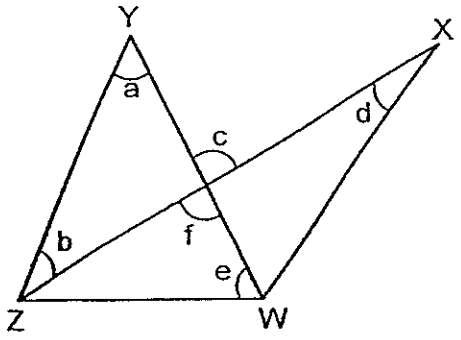
1) 15

2) 63

3) 72

4) 84

8. In the figure, not drawn to scale, WY and XZ are straight lines. Which of the two angles given in the figure are equal?



1) ∠a and ∠d

2) ∠b and ∠d

3) ∠c and ∠f

4) ∠e and ∠f

9. Sally walked from her home to the park. She walked at 4 km/h and took 15 minutes to reach the park. If she walked 1 km/h slower, how long would she take to reach the park?

1) $\frac{1}{5}$ h
2) $\frac{1}{4}$ h
3) $\frac{1}{3}$ h
4) $\frac{3}{4}$ h

10. At a sale, Lily paid \$20 for a book after getting a discount of \$5. What was the percentage discount?

1) 20%
2) 25%
3) 60%
4) 75%

11. Dolly is x years old now. Her mother is 25 years older than she is. What is their total age in 6 years' time?

1) $(x + 31)$ years
2) $(x + 37)$ years
3) $(2x + 31)$ years
4) $(2x + 37)$ years

12. The sides of a square are increased by 10% each. What is the percentage increase in the area of the square?

1) 140%

2) 121%

3) 21%

4) 20%

13. The ratio of the number of boys to the number of girls in a kids club was 5 : 4. When 24 boys left the club, the membership decreased to $\frac{2}{3}$ of its original size. How many boys were there at first?

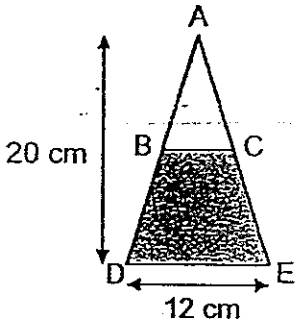
1) 32

2) 40

3) 48

4) 72

14. The figure below is not drawn to scale. The area of triangle ABC is $\frac{2}{5}$ of the area of triangle ADE. What is the area of the shaded part?



1) 48 cm^2

2) 60 cm^2

3) 72 cm^2

4) 120 cm^2

15. Mr Lim drove at a speed of 82 km/h for 2 hours. Then he changed his speed to 60 km/h for another hour. What was the total distance he travelled?

1) 142 km

2) 164 km

3) 202 km

4) 224 km

** END OF BOOKLET A**

Name : _____ ( )

Class : Primary 6 _____

CHIJ ST NICHOLAS GIRLS' SCHOOL (PRIMARY)

Primary 6

2014 Semestral Assessment One

Mathematics

Paper 1

Booklet B

12 May 2014

Booklet A	20
Booklet B	20
Total (Paper 1)	40

Total Time for Booklets A and B : 50 minutes

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.
Follow all instructions carefully.
Answer all questions.
The use of calculators is **NOT** allowed.

This booklet consists of 7 printed pages including the cover page.

Questions **16** to **25** carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

Do not write in this space

16. Mr Tan paid about $150 000 for a car. This amount has been rounded off to the nearest ten thousand dollars. What could be the highest possible price of the car?

Ans : $ _____

17. What decimal is exactly between 1.02 and 1.05?

Ans : _____

18. Five children shared 3 whole pizzas equally. What fraction of the pizzas did 2 of them get? Express your answer as a mixed number in the simplest form.

Ans : _____

19. What is the value of $2\frac{1}{7} \div \frac{1}{4}$?

Give your answer in the simplest form.

Ans : _____

Do not write in this space

20. The table below shows the number of marks each girl scored for a Mathematics test in the years 2013 and 2014.

Name	Marks (2013)	Marks (2014)
Abigail	60	80
Benilda	80	100
Christine	80	96

Who improved her marks by 20% in the year 2014?

Ans : _____

21. What is the missing number in the box?

15 : 18 = $\boxed{?}$: 12

Ans : _____

22. Simplify $15 + 12a + 8 - 5a - 3$.

Ans :

23. Express 1060 cm in metres.
Give your answer as a decimal.

Ans : _____ m

24. Mrs Sharufa is less than 50 years old now. Her present age is a multiple of 9. Last year, her age was a multiple of 5. How old is Mrs Sharufa now?

Ans : _____ years

25. A car travelled at an average speed of 90 km/h. How much time would the car need to travel 30 km?

Ans : _____ min

Do not write in this space

Questions **26** to **30** carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

Do not write in this space

26. Find the average of all the even numbers between 11 and 23.

Ans : _____

27. Kelly took part in a quiz which she had to answer 30 questions. 5 marks were awarded for each correct answer and 2 marks were deducted for each wrong answer. Kelly scored a total of 94 marks for the quiz. How many mistakes did she make?

Ans : _____

28. A piece of wire 40 cm long is bent to form a square. A second piece of wire, twice as long as the first piece, is bent to form a rectangle of breadth 10 cm. What is the ratio of the length of the square to the length of the rectangle?

Ans : _____

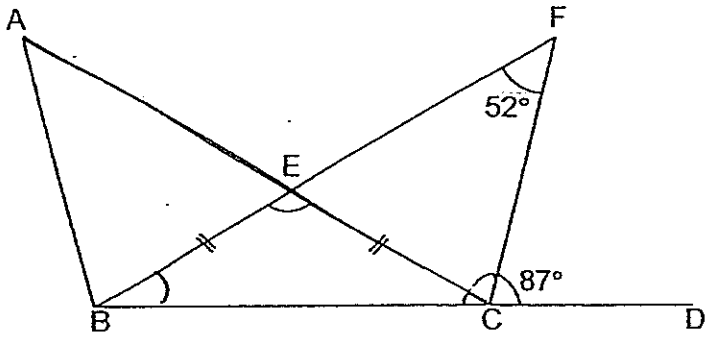
29. Karen cycles at an average speed of 10 km/h from her house to her school. Her school is 2 km away from her house. At what time must Karen set off from her house in order to reach her school at 7.20 a.m.?

Ans: _____ a.m.

Do not write in this space

30. The figure below is not drawn to scale. BCE is an isosceles triangle. AC, BF and BD are straight lines. Find ∠BEC.

Do not write in this space



Ans : _____ °

END OF PAPER 1

Name : _____

Class : Primary 6 _____

CHIJ ST NICHOLAS GIRLS' SCHOOL (PRIMARY)

Primary 6

2014 Semestral Assessment One

Mathematics
Paper 2

12 May 2014

Paper 1	40
Paper 2	60
Total	100

Time : 1 hour 40 minutes

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so
Follow all instructions carefully.
Answer all questions.
The use of an approved calculator is expected, where appropriate.

This booklet consists of 15 printed pages including the cover page.

Questions 1 to 5 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

Do not write in this space

1. Mary's height is y cm. John is 10 cm taller than Mary. Benny is 3 cm shorter than Mary. Find the total height of the three children.

Ans : _____ cm

2. At a fruit stall, the number of apples is $\frac{7}{10}$ of the number of pears. If 40% of the pears are sold, what percentage of the apples must be sold so that the number of apples and pears left at the stall is equal? Leave your answer as a mixed number.

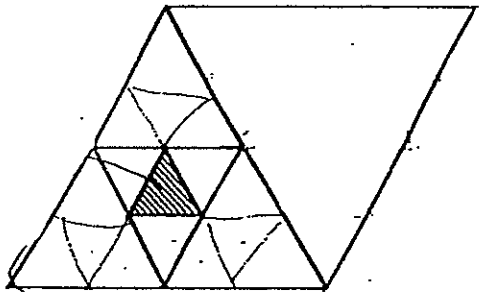
Ans : _____ %

3. Vanessa spent $\frac{1}{6}$ of her monthly allowance on bus fare, $\frac{1}{3}$ of the remainder on food and \$18 on books. Then she had \$4.50 left. How much did she spend on food?

Do not write in this space

Ans : \$ _____

4. The figure below, not drawn to scale, is made up of equilateral triangles of different sizes. Given that the area of the shaded triangle is 4 cm^2, what is the area of the figure?



Ans : _____ cm^2

5. Four children made the following statements.

Winnie : The average of Yasmin's mass and my mass is 29 kg.
Xania : I am the heaviest.
Yasmin : Zen is 2 kg lighter than Xania.
Zen : Our masses are in consecutive order.

What is the mass of Xania?

(Note: An example of 4 numbers in consecutive order is 5, 6, 7, 8.)

Do not write in this space

Ans : _____ kg

For questions **6** to **18**, show your working clearly and write your answers in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question. (50 marks)

Do not write in this space

6. A plot of land with an area of 20 m^2 was divided into smaller plots of land with an area of $\frac{3}{8}$ m^2 each.

(a) How many plots of land with area of $\frac{3}{8}$ m^2 were there?

(b) What area of the original plot of land was left?

Ans : a) _____ [1m]

b) _____ [2m]

7. Willy wanted to buy a pair of sports shoes. He had only $\frac{3}{5}$ of the money. After his father gave him another \$16, he was still short of $\frac{3}{10}$ of the money. Then Willy decided to save \$2.40 a day. What is the least number of days that he would take to save to buy the pair of sports shoes?

Do not write in this space

Ans : _____ [3m]

8. A car travelled at 70 km/h for $2\frac{1}{2}$ hours. Then it travelled at 84 km/h for $3\frac{1}{2}$ hours. What was its average speed for the whole journey?

Do not write in this space

Ans : _____ [3m]

9. k boys each rented a bicycle and went on an excursion for 5 hours. For each bicycle, the bicycle shop charged \$8 for the first hour and an hourly rate of \$5 for the subsequent hours.

(a) Find, in terms of k, the cost of renting the bicycles for the excursion.

(b) The boys paid \$350 for the rental of the bicycles. Given that $k = 11$, how much change did the boys receive?

Do not write in this space

Ans : a) _____ [1m]

b) _____ [2m]

10. At a bus stop, $\frac{11}{12}$ of the passengers alighted from the bus and 15 people boarded the bus. In the end, the ratio of the number of passengers to the original number of passengers was 1 : 3. How many passengers were there originally?

Do not write in this space

Ans : _____ [3m]

11. A sum of \$2345 was distributed to Aaron, Bill and Cavin. $\frac{1}{2}$ of Aaron's share was $\frac{1}{3}$ of Bill's share. $\frac{1}{4}$ of Bill's share was $\frac{1}{5}$ of Cavin's share.

(a) What was the ratio of Aaron's share to Bill's share to Cavin's share?

(b) How much did Bill get?

Do not write in this space

Ans : a) _____ [1m]

b) _____ [3m]

12. Mr Ng earned a fixed monthly salary last year. He spent 25% of his salary in November. In December, he spent 50% less than what he spent in November.

(a) If his total expenditure for the 2 months was $960, what was his monthly salary last year?

(b) If Mr Ng received a 5% increase in his salary this year, what would be his new salary?

Do not write in this space

Ans : a) _____ [2m]

b) _____ [2m]

13. Mena has 4 times as many stickers as Pam plus 16 more. Mena has 8 times as many stickers as Nellie. Pam has 18 more stickers than Nellie. How many stickers does Pam have?

Do not write in this space

Ans : _____ [4m]

14. A pen cost \$2.10. Mrs Wee bought 38 pens in January and some pens in February. At the end of the two months, Mrs Wee spent a total of \$126 on the pens.

(a) Find the number of pens Mrs Wee bought in February.

(b) In March, the pens are sold at either \$2.10 each or \$5.50 for 3 pens. Find the least amount of money Mrs Wee needed to pay to buy the same number of pens she bought in February.

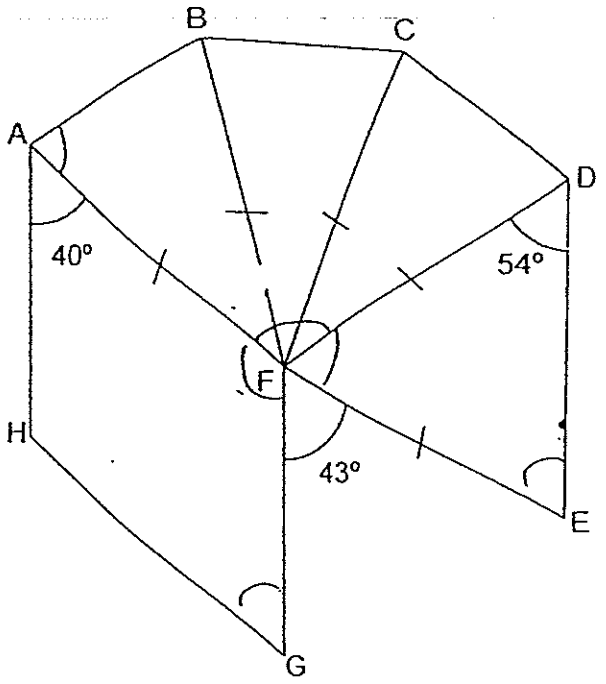
Do not write in this space

Ans : a) _____ [2m]

b) _____ [2m]

15. The figure, not drawn to scale, is made up of 4 triangles and a parallelogram AHGF. ABF, BCF and CDF are identical triangles. Find ∠FAB.

Do not write in this space



Ans : _____ _____ [4m]

16. Mr Kamal took a total of $3\frac{5}{6}$ hours to drive from City A to City B. His average speed for the whole journey was 90 km/h. He travelled the first 40% of the journey at a speed of 92 km/h. The next 30% of the journey took him 50 minutes. At what speed did he travel the last part of the journey?

Do not write in this space

Ans: _____ [5m]

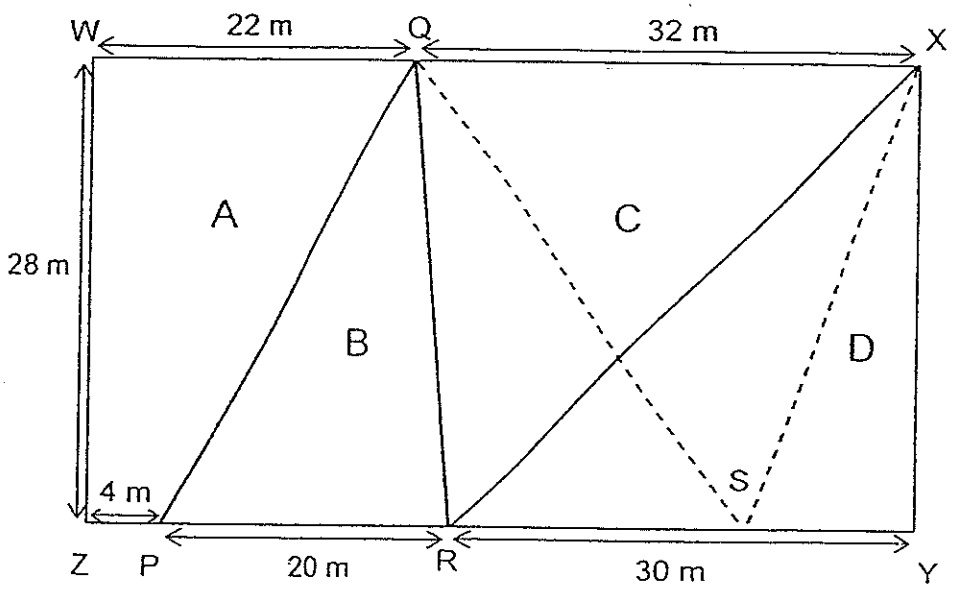
17. When Mr Lim started on his journey to Malaysia, he had 18.4 ℓ of petrol in the petrol tank of his car. After travelling for a few hours, he found that he had only 4.8 ℓ of petrol left. He then pumped in \$40 worth of petrol. The cost of the petrol is \$1.60 per litre. At the end of the journey, Mr Lim had 1.4 ℓ of petrol left. If Mr Lim used 400 mℓ of petrol for every 1 km travelled, what was the total distance travelled?

Do not write in this space

Ans : _____ [5m]

18. A rectangular hall, WXYZ, not drawn to scale, is partitioned into 4 areas, A, B, C and D.

Do not write in this space



(a) What is the area of A?

(b) The area of B is doubled when Point R is moved to Point S. What is the ratio of the area of A to the new area of D?

Ans : a) _____ [2m]

b) _____ [3m]

** END OF PAPER **

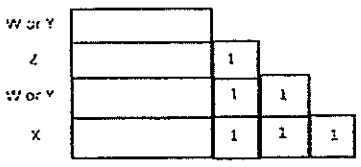
EXAM PAPER 2014

LEVEL : PRIMARY 6
SCHOOL : ST. NICHOLAS
SUBJECT : MATHS
TERM : SA1

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
2	2	3	3	2	2	1	3	3	1	4	3	2	3	4

Q16 $154 999
Q17 1.035
Q18 $1\frac{1}{5}$
Q19 $2\frac{11}{28}$
Q20 Christine
Q21 10
Q22 20 + 7a
Q23 10.6m
Q24 36 years
Q25 20min
Q26 17
Q27 8 mistakes
Q28 1:3
Q29 7.08a.m.
Q30 110°

PAPER 2

Q1		Mary → y cm John → (y+10)cm Benny → (y-3)cm (y+10+y+y-3) cm = (3y + 7)cm
Q2		A : P 7 : 10 7 : 6 (-40%) 14 : 12 14 – 2 = 2 2 ÷ 2 = 1 $\frac{1}{7}$ X 100% = $14\frac{2}{7}$%
Q3		1 — $\frac{1}{6}$ bus fare $\frac{5}{6}$R — $\frac{1}{3}$ food — $18 books 1 — $4.50 left $\frac{2}{3}$R → $4.50 + $18 = $22.50 $\frac{1}{3}$R (food) → $22.50 ÷ 2 = $11.25
Q4		Number of small = 16 x 2 = 32 Area of the figure = 32 x 4cm² = 128cm²
Q5		 29kg X 2 = 58kg 58kg - 2kg = 56kg 56kg ÷ 2 = 28kg 28kg + 3kg = 31kg
Q6	(a)	$\frac{1}{8}m^2$ ⇒ 1u $\frac{3}{8}m^2$ ⇒ 1u x 3 Small plot of land = 3u 20m² ⇒ 20 x 8 1u = 160 No. of $\frac{3}{8}m^2$ ⇒ 160 ÷ 3 = 53 R 1
	(b)	1u ⇒ $\frac{1}{8}m^2$

Q7		Amt B4 → $\frac{3}{5} = \frac{6}{10}$ Amt after → $1 - \frac{3}{10} = \frac{7}{10}$ $7_u - 6_u = 1_u$ $1u \Rightarrow \$16$ $10u \Rightarrow \$16 \times 10 = \$160$ (full amt needed) $6u \Rightarrow \$16 \times 6 = \$96$ (Amt @ first) $7u \Rightarrow \$96 - \$16 = \$112$ Amt needed $\Rightarrow \$160 - \$112 = \$48$ No of Days $\Rightarrow \$48 \div \$2.40 = 20$
Q8		$70 \times 2\frac{1}{2} = 175$ $84 \times 3\frac{1}{2} = 294$ Journey's km → $294 + 175 = 469$ Time taken → $2\frac{1}{2} + 3\frac{1}{2} = 6$ Av. speed → $469 \div 6 = 78\frac{1}{6}$
Q9	(a)	$5 - 1 = 4$ 1 boy (1 bike) → $\$8 + \$5 \times 4 = \$28$ 14 boys (14 bikes) → $\$28 \times 14 = \$(392)$
	(b)	11 boys (11 bikes) → $\$28 \times 11 = \$308$ change → $\$350 - \$308 = \$42$
Q10		End : Ori $\times 4 \left(\frac{1 : 3}{4 : 12} \right) \times 4$ $12_u - 11_u = 1_u$ 1 ppl → $4_u - 1_u = 3_u$ 1 ppl → $3u$ 5 ppl → $1u$ $12u \rightarrow 5 \times 12 = 60$
Q11	(a)	A : B : C : T 2 : 3 $\times 4 \left(\frac{4 : 5}{\times 3 \quad 4} \right) \times 3$ 8 : 12 : 5 35
	(b)	2345 ÷ 35 = 67 67 x 12 = 804

Q12	(a)	$960 ÷ 3 = $320 $320 x 2 = $640 $640 x 4 = $2560
	(b)	$2560 x 105% = $2688
Q13		16÷8 = 2 18+2 = 20 20 x 2 = 40
Q14	(a)	38 x 2.10 = 79.80 126 – 79.80 = 46.20 46.20 ÷ 2.10 = 22
	(b)	22 ÷ 3 = 7R1 7 X 5.50 = 38.50 38.50+2.10 = 40.60
Q15		∠AFG → 180 − 40 = 140 ∠DFE → 180 − 54 − 54 = 72 ∠AFD → 360 − 140 − 43 − 72 = 105 ∠BFA → 105 ÷ 3 = 35 ∠FAB → 180 − 35 = 145 x2 ∠FAB → 145 ÷ 2 = 72.5
Q16		$3\frac{2}{6} \times 90 = 345$ 345 x 40% = 138 138 ÷ 92 = 1.5 100 − 40 − 30 = 30 $3\frac{5}{6} - 1\frac{1}{2} - \frac{50}{60} = 1\frac{1}{2}$ 345 x 30% = 103.5 $103.5 \div 1\frac{1}{2} = 69$
Q17		40÷1.60=25 18.4 – 4.8 =13.6 25 +4.8 – 1.4 = 28.4 28.4 + 13.6 = 42 42 ÷ 0.4 = 105
Q18	(a)	22-4 = 18 18 x 28 x 0.5 = 252 252 + 4x28= 364
	(b)	30-20 = 10 10 x 28 x 0.5 = 140 A : D(new) 364 : 140 13 : 5

HENRY PARK PRIMARY SCHOOL
2014 SEMESTRAL EXAMINATION 1
MATHEMATICS
PRIMARY 6

PAPER 1

Name: _____ ( )

Class: Primary 6 _____

40

30 Questions
40 Marks

Total Time for Booklet A and B: 50 min

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

READ AND FOLLOW INSTRUCTIONS CAREFULLY.

YOU ARE NOT ALLOWED TO USE A CALCULATOR.

Booklet A:

Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each.
For each of the questions, four options are given. One of them is the correct answer. Choose the correct answer (1, 2, 3 or 4). Shade the correct oval on the Optical Answer Sheet provided. (20 marks)

1. The value of $3 + 4 \times 6 - 6 \div 3$ is _____.

   (1) 7
   (2) 12
   (3) 3
   (4) 25 ( )

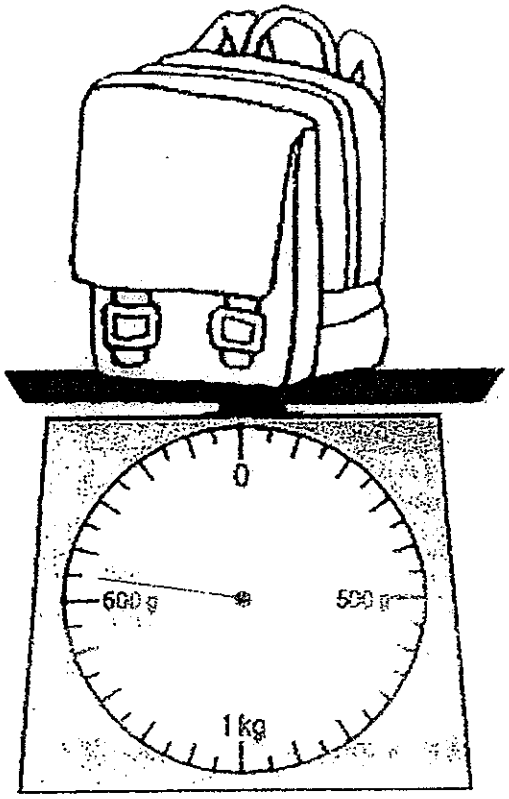
2. How many eighths are there in $3\frac{1}{2}$?

   (1) 7
   (2) 14
   (3) 24
   (4) 28 ( )

3. Which of the following is the same as 8 050 mℓ?

   (1) 8 ℓ 5 mℓ
   (2) 8 ℓ 50 mℓ
   (3) 80 ℓ 5 mℓ
   (4) 80 ℓ 50 mℓ ( )

4. The mass of the bag shown below is _____.

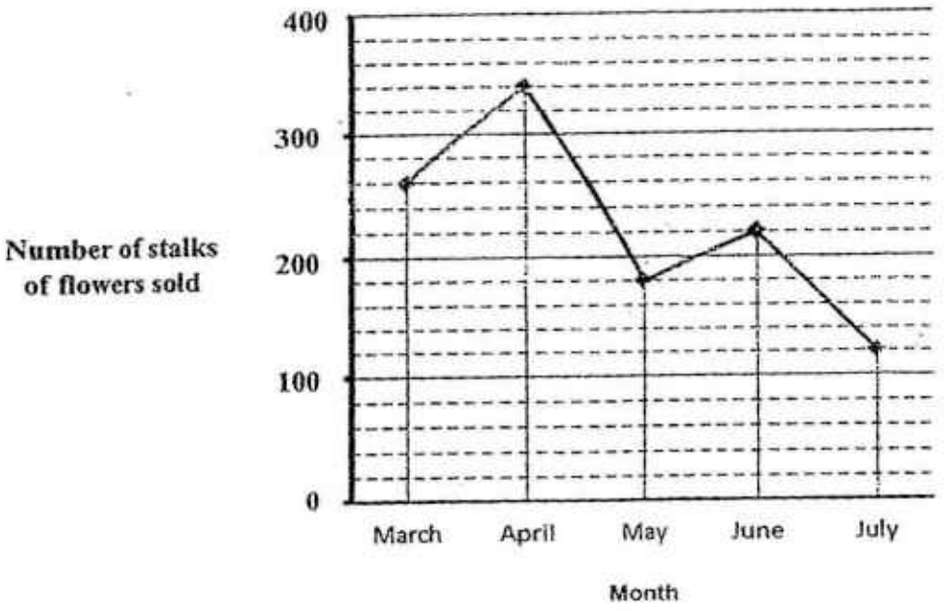


(1) 550 g
(2) 600 g
(3) 1550 g
(4) 1600 g ( )

5. The average of five numbers is 265. What is the sum of the five numbers?

(1) 51
(2) 53
(3) 1025
(4) 1325 ( )

6. The line graph shows the number of stalks of flowers sold over 5 months.

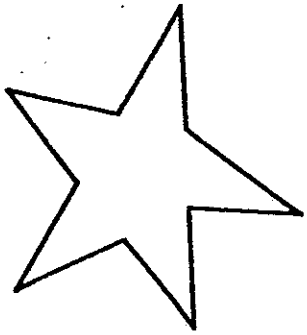


What was the difference in the number of stalks of flowers sold in March and May?

(1) 80
(2) 90
(3) 120
(4) 440 ( )

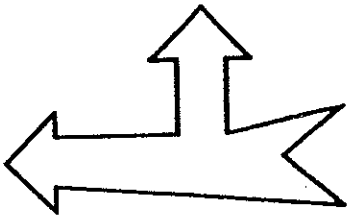
7. Which figure below has a line of symmetry?

(1)

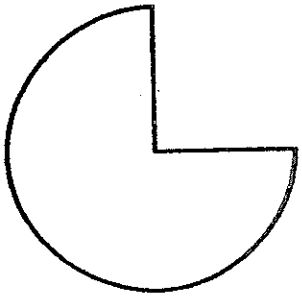


(2)

(3)

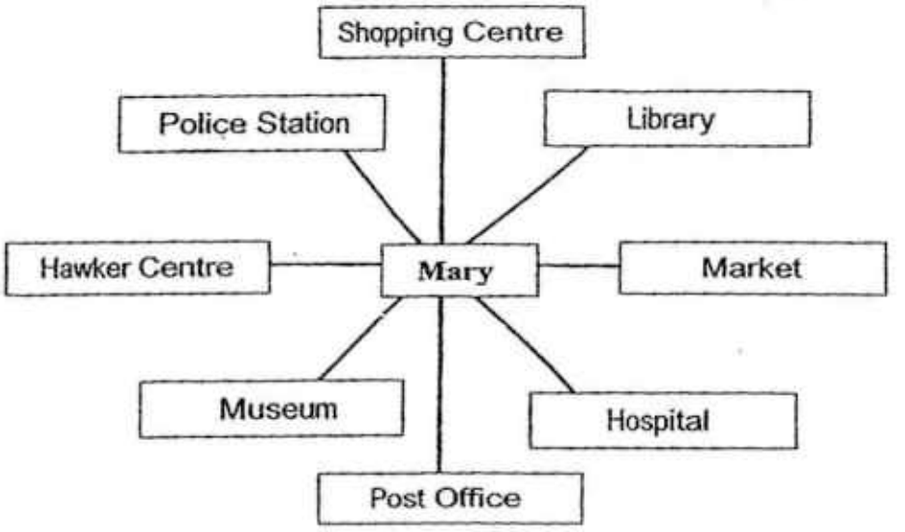


(4)



( )

8. Look at the figure shown below. Mary is facing the hawker centre at first. She then turned 225° anti-clockwise. Which one of the following places will she be facing now?



(1) Library
(2) Hospital
(3) Shopping Centre
(4) Post Office ( )

9. There are 40 pupils in a Science Enrichment class. 30% of the pupils are girls. How many boys are there in the Science Enrichment class?

(1) 10
(2) 12
(3) 28
(4) 37 ( )

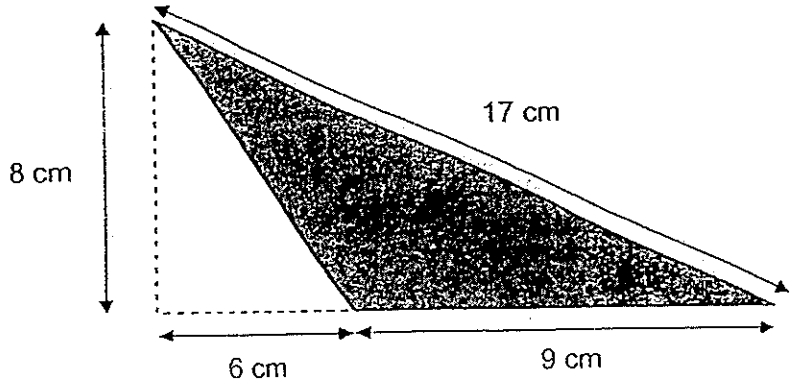
10. Simplify $9p + 14 - 3p - 6$.

(1) $6p + 8$
(2) $6p - 8$
(3) $12p + 8$
(4) $12p + 20$ ( )

11. Find the difference between 6 tenths and 88 hundredths. Round off your answer to the nearest tenth.

(1) 0.2
(2) 0.3
(3) 0.5
(4) 0.6 ( )

12. What is the area of the shaded triangle shown below?

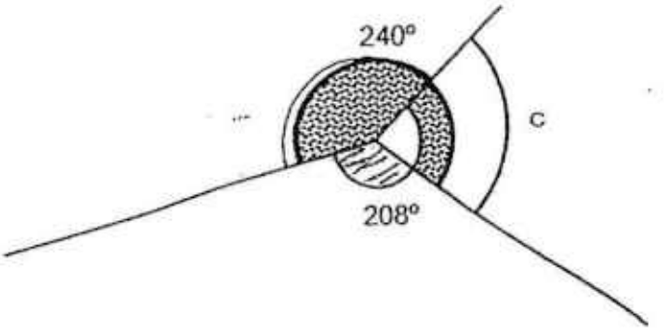


(1) 24 cm^2
(2) 36 cm^2
(3) 60 cm^2
(4) 68 cm^2 ( )

13. The mass of Box A is 36 kg. The total mass of Box B and C is 3 times the mass of Box A. What is the average mass of the three boxes?

(1) 16 kg
(2) 48 kg
(3) 84 kg
(4) 144 kg ( )

14. Study the figure below. Find ∠c.



(1) 32°
(2) 88°
(3) 120°
(4) 152 °

( )

15. Jiamin saved $30.15 from Monday to Wednesday. She saved 3 times as much money on Thursday than the total amount saved from Monday to Wednesday. How much money did she save for the 4 days?

(1) $10.05
(2) $40.20
(3) $90.45
(4) $120.60

( )

Booklet B:
Questions 16 to 25 carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

16. Find the difference in values of the digit 9 in 293 967.

Ans: _____

17. What is the missing fraction in the box? Give your answer in the simplest form.

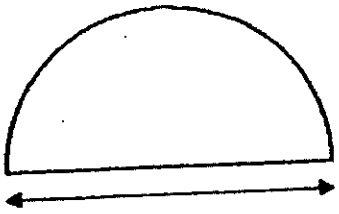
$280 = \boxed{?} \times 350$

Ans: _____

18. 3 h 15 min = _____ min

Ans: _____ min

19. Find the perimeter of the semicircle shown below. (Take $\pi = \frac{22}{7}$.)



14 cm

Ans: _____ cm

20. 287 900 m = _____ km.

Ans: _____ km

21. Mrs Tan sold a total of 552 muffins from Tuesday to Friday. What was the average number of muffins Mrs Tan sold each day?

Ans: _____

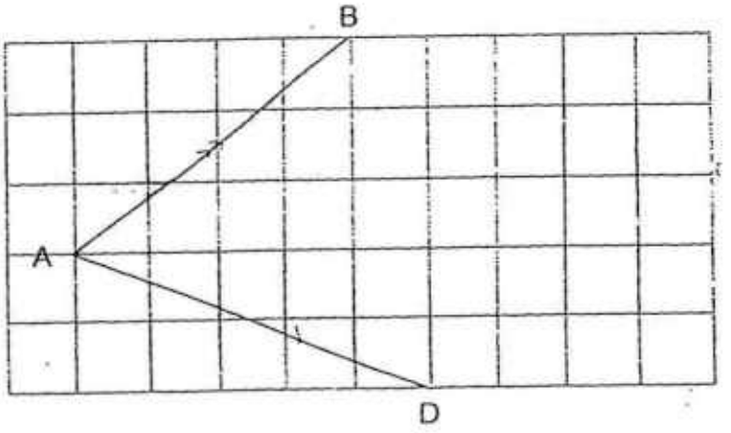
22. The table shows the number of television sets each family in Katong housing estate has. There are 150 families in the housing estate.

Number of television sets per family	0	1	2	3
Number of families	16	29	75	30

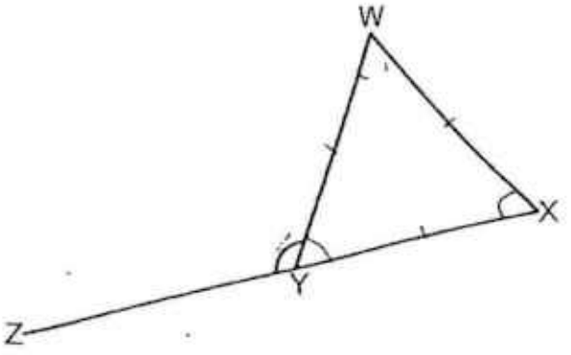
What percentage of the families has **at least** 2 television sets?

Ans: _____ %

23. AB and AD are two sides of a parallelogram. Complete the parallelogram by drawing the other two sides in the square grid below.



24. In the figure, WXY is an equilateral triangle and XYZ is a straight line. Find ∠WYZ.



Ans: _____ °

25. Express 4.05 as a percentage.

Ans: _____ %

Questions 26 to 30 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

26. Find the average of 0.2, 0.02 and 0.002.

Ans: _____

27. Sam and Taufiq shared some stickers in the ratio of 5 : 2. Sam gave $\frac{1}{4}$ of his stickers to Taufiq. What was the new ratio of the number of Sam's stickers to the number of Taufiq's stickers?

Ans: _____

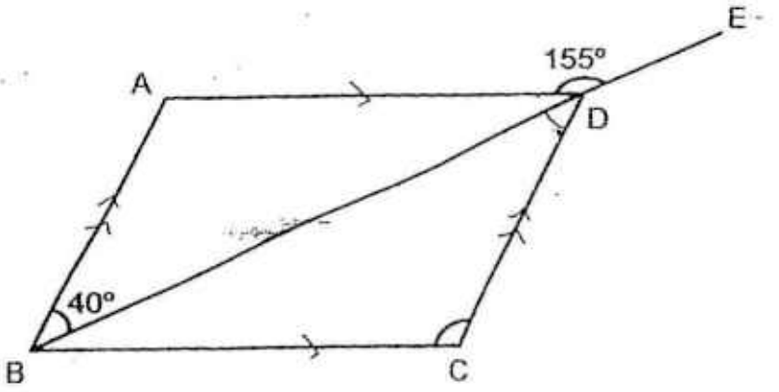
28. Given that $\frac{5}{8}$ of a number is 80, what is the number?

Ans: _____

29. The capacity of a pail is 4.5 ℓ. Jane uses 12 such pails of water to fill 5 identical tanks completely. What is the capacity of each tank?

Ans: _____ ℓ

30. In the figure, ABCD is a parallelogram and BDE is a straight line. Find ∠BCD.



Ans: _____ °

END OF PAPER

Setters: Mr Bernard Li, Mrs Priscilla Heng, Mrs Josephine Lai, Ms Yew Hew Mei, Mdm Norah Idil

HENRY PARK PRIMARY SCHOOL
2014 SEMESTRAL EXAMINATION 1
MATHEMATICS
PRIMARY 6

PAPER 2

Name: _____ ( )

Class: Primary 6 _____

60

18 Questions
60 Marks

Total Time for Paper 2: 1 h 40 min

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

READ AND FOLLOW INSTRUCTIONS CAREFULLY.

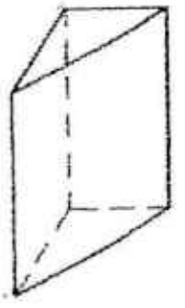
YOU ARE ALLOWED TO USE A CALCULATOR.

Questions 1 to 5 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the space provided. For questions which require units, give your answers in the units stated. (10 marks)

1. A square has an area of 36 cm^2. Find its perimeter.

Ans: _____ cm

2. The figure below shows a prism.
   (a) How many corners does it have?
   (b) How many faces does it have?

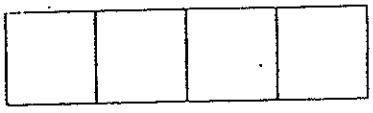


Ans:(a) _____ [1]
(b) _____ [1]

3. Tin A contained 6 times as many biscuits as Tin B. Jennifer added 150 biscuits to Tin B. The 2 tins then had the same number of biscuits. Find the total number of biscuits in the 2 tins at first.

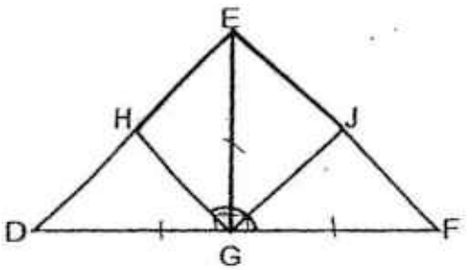
Ans: _____

4. In the figure below, 4 identical squares have been placed side by side to form a rectangle of perimeter 50 m. Find the area of each square.



Ans: _____ m^2

5. In the figure, DEG and GEF are identical right-angled isosceles triangles. H and J are the mid-points of DE and EF respectively. Find ∠FGH.



Ans: _____ °

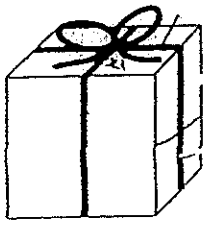
For questions 6 to 18, show your working clearly in the space provided for each question and write your answers in the spaces provided.

The number of marks available is shown in brackets [ ] at the end of each question or part-question. (50 marks)

6. There were 3 220 spectators at a stadium. $\frac{3}{7}$ of the male and $\frac{3}{4}$ of the female spectators did not wear sunglasses. The number of male spectators who wore sunglasses was the same as the number of female spectators who wore sunglasses. How many spectators wore sunglasses altogether?

Ans: _____ [3]

7. A 0.75-m long ribbon is used to tie a cubic box as shown in the picture. The tying of the bow used up 0.11 m of the ribbon. Find the length of each side of the box in metres.



Ans: _____ [3]

8. Figure A is made up of a rectangle and a triangle. Figure B is a rectangle. Figures A and B have the same area. Find the perimeter of Figure B.

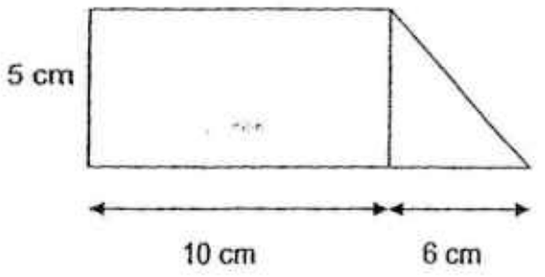


Figure A

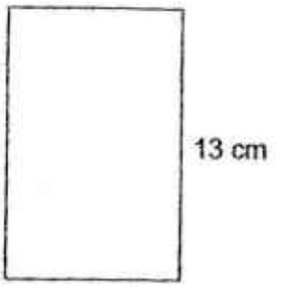


Figure B

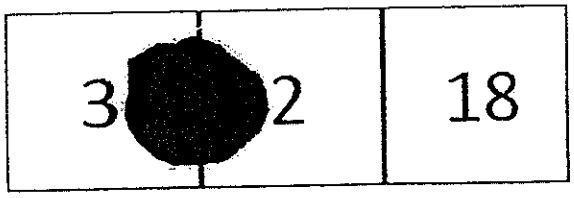
Ans: _____ [3]

9. Alice decided to save part of her pocket money every day for a year. She saved \$3 on the first day of the year. She continued to save \$$y$ more each day than the day before.

(a) What was her total savings for the first 4 days of the year?
(b) How much did she save on the 234th day itself?

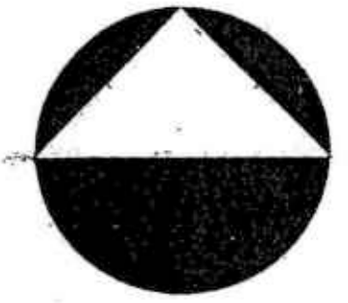
Ans: (a) _____ [2]
(b) _____ [1]

10. Three 2-digit numbers were written on a piece of paper. The average of the three numbers was 42. A digit of two of the numbers was covered by a stain.
What were the two 2-digit numbers?



Ans: _____ and _____ [3]

11. The figure below shows a right-angled triangle inside a circle. The longest side of the triangle is the diameter of the circle. Given that the diameter of the circle is 10 cm, find the area of the shaded portion. (Take $\pi = 3.14$)



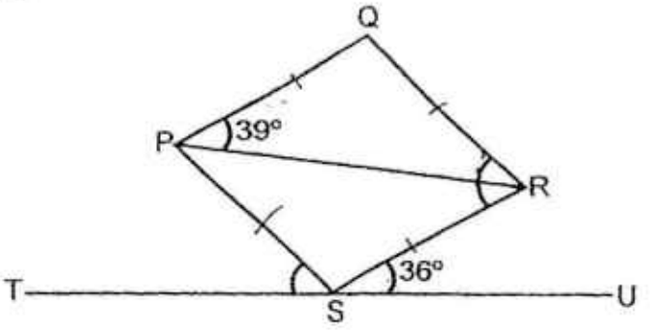
Ans: _____ [4]

12. Mrs Bala had a total of 128 apples, oranges and mangoes in the ratio of 7 : 5 : 4 respectively. After she gave away some apples and 15 mangoes, the ratio of the number of oranges to the total number of fruits left became 1 : 2. How many apples did Mrs Bala give away?

Ans: _____ [4]

13. In the figure, PQRS is a rhombus. TSU is a straight line. $\angle RPQ = 39°$ and $\angle RSU = 36°$.

(a) Find $\angle QRS$.
(b) Find $\angle PST$.



Ans: (a) _____ [1]

(b) _____ [3]

14. Mrs Wong was paid $5 for every cooking pot she sold. She was paid a bonus of $20 for every 8 cooking pots she sold. She earned $500 for all the cooking pots she sold. How many cooking pots did she sell?

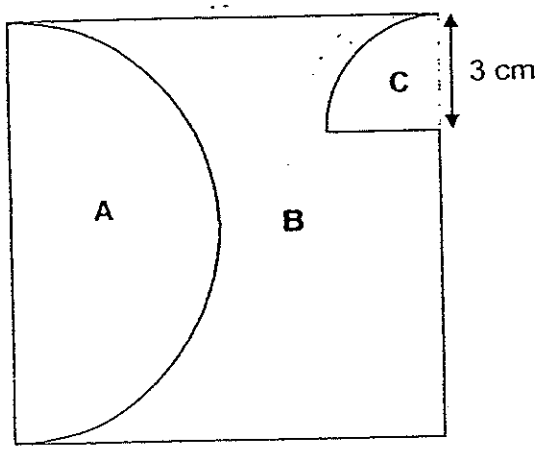
Ans: _____ [4]

15. Mr Lin always saves 30% of his monthly salary. When his salary increased by 10%, his savings increased by $189. Find Mr Lin's salary before the increase.

Ans: _____ [4]

16. The figure below shows semi-circle A and quarter-circle C inside a square of side 12 cm. B is the remaining portion of the square not covered by A and C.

(a) Find the perimeter of B.
(b) Find the area of B.
(Take $\pi = 3.14$)



Ans: (a) _____ [3]

(b) _____ [2]

17. At a fruit stall, the number of watermelons was $\frac{3}{5}$ of the number of pineapples.

In the morning, $\frac{1}{3}$ of the watermelons and $\frac{1}{3}$ of the pineapples were sold.

In the afternoon, 8 watermelons and 8 pineapples were sold.

The number of watermelons left was $\frac{1}{2}$ of the number of pineapples.

(a) What was the ratio of the number of watermelons left to the number of pineapples left after they were sold in the **morning**?

(b) How many watermelons were there at the stall at first?

Ans: (a) _____ [2]

(b) _____ [3]

18. There were 20 questions in a quiz.
For each question answered correctly, 6 points were awarded.
For each question answered incorrectly, 4 points were deducted.
For each question left blank, no points were awarded or deducted.

(a) Ben **answered all the questions** in the quiz but obtained a score of zero. How many questions did Ben answer correctly?

(b) Ray scored 16 points for the quiz. The number of questions he answered correctly was the same as the number of questions he answered incorrectly. How many questions did he leave **blank**?

Ans: _____ [5]

END OF PAPER

Setters: Mr Bernard Li, Mrs Priscilla Heng, Mrs Josephine Lai, Ms Yew Hew Mei, Mdm Norah Idil

EXAM PAPER 2014
LEVEL : PRIMARY 6
SCHOOL : HENRY PARK
SUBJECT : MATHS
TERM : SA1

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
4	4	2	3	4	1	4	1	3	1	2	2	2	2	4

Q16 89100

Q17 $^4/_5$

Q18 195 min

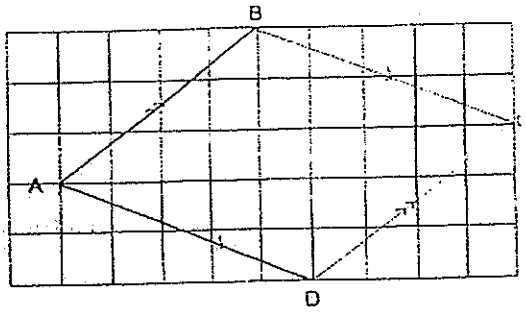
Q19 36 cm

Q20 287.9 km

Q21 138 muffins

Q22 70%

Q23



Q24 120 °

Q25 405%

Q26 0.074

Q27 15 : 13

Q28 128

Q29 10.8ℓ

Q30 115 °

PAPER 2

Q1 $\sqrt{36} = 6$
$6 \times 4 = 24$

Its perimeter is 24 cm.

Q2 (a) 6 corners
(b) 5 faces

Q3 $6 - 1 = 5$
5 units $\rightarrow$ 150
1 unit $\rightarrow$ 30
7 units $\rightarrow$ 210

The total number of biscuits is 210.

Q4 10 units $\rightarrow$ 50 m
1 unit $\rightarrow$ 5 m
$5 \times 5 = 25$

The area is $25m^2$.

Q5 $90 \div 2 = 45$
$45 \times 3 = 135$
$\angle$ FGH is 135°

Q6 $1 - {}^3/_7 = {}^4/_7$
$1 - {}^3/_4 = {}^1/_4$
${}^1/_4F = {}^4/_7M$
${}^4/_{16}F = {}^4/_7M$
$16 + 7 = 23$
23 units $\rightarrow$ 3220
1 unit $\rightarrow$ 140
$4 \times 2 = 8$
$140 \times 8 = 1120$

1120 spectators wore glasses altogether.

Q7 $0.75 - 0.11 = 0.64$
$0.64 \div 8 = 0.08$ (8 sides)

The length is 0.08m.

Q8 $6 \times 5 \times 0.5 = 15$
$10 \times 5 = 50$
$50 + 15 = 65$
$65 \div 13 = 5$
$2(13 + 5) = 36$
The perimeter is 36 cm.

Q9 $3 + y + 3 + y + y + 3 + y + y + y + 3 = 6y + 12$

a. Her total savings is $(6y+12).

$234 - 1 = 233$
$233 \times y = 233y$
$233y + 3 \rightarrow 234^{th}$ day

b. **She saved $(233y + 3).**

Q10 $42 \times 3 = 126$
$126 - 18 - 2 - 30 = 76$
$70 + 6 = 76$
$70 + 2 = 72$
$30 + 6 = 36$

The digits are 36 and 72.

Q11 $10 \div 2 = 5$
$5 \times 10 \times 0.5 = 25$
$5 \times 5 \times 3.14 = 78.5$
$78.5 - 25 = 53.5$

The area is 53.5 cm^2.

Q12

A :	O :	M
7 :	5 :	4
-?		-15 (gave away)

left : orange

2 : 1 (x5)
10 : 5 (Orange unchanged)

$7 + 5 + 4 = 16$
16 units $\rightarrow$ 128
1 unit $\rightarrow$ 8
10 units $\rightarrow$ 80 (fruits left)
$128 - 80 = 48$ (gave away apples + 15 mangoes)
$48 - 15 = 33$

She gave away 33 apples.

Q13 (a) $\angle QPR = \angle QRP = \angle PRS$

$39 \times 2 = 78$

$\angle QRS = 78^{\circ}$

(b) $180 - 78 = 102$

$\angle PSR = 102^{\circ}$

$180 - 102 - 36 = 42$

$\angle PST = 42^{\circ}$

Q14 $8 \times 5 = 40$

$40 + 20 = 60$

$500 \div 60 = 8R20$

$20 \div 5 = 4$

$8 \times 8 = 64$

$64 + 4 = 68$

She sold 68 cooking pots.

Q15 $^{10}/_{100} \times 30 = 3$

$3\ \% \rightarrow 189$

$1\ \% \rightarrow 63$

$100\% \rightarrow 6300$

Mr Lin's salary is $6300.

Q16 (a) $12 \times 3.14 \times \frac{1}{2} = 18.84$

$3 \times 2 = 6$

$6 \times 3.14 \times \frac{1}{4} = 4.71$

$12 - 3 = 9$

$9 + 3 + 12 + 12 + 18.84 + 4.71 = 59.55$

The perimeter of B is 59.55cm.

(b) $12 \times 12 = 144$

$12 \div 2 = 6$

$6 \times 6 \times 3.14 \times \frac{1}{2} = 56.52$

$3 \times 3 \times \frac{1}{4} \times 3.14 = 7.065$

$144 - 56.52 - 7.065 = 80.415$

The area of B is 80.415cm^2.

Q17

	W : P	
	3u : 5u (x3)	
	9u : 15u	
(morning)	3u : 5u (⅓ sold)	
	6u : 10u (left)	
(afternoon)	-8 -8 (sold)	
	1u : 2u	
	4u : 8u (left)	

Diff
4u
1u (x4)

(a) The ratio is 3 : 5

(b) 10u – 8u = 2u
2u → 8
9u → 36

There were 36 watermelons at first.

Q18 Assume Ben answered all the questions correctly.

20 x 6 = 120
6 + 4 = 10
120 ÷ 10 = 12
20 – 12 = 8

Ben answered 8 questions correctly.

Assume Ben answered all the questions

20 ÷ 2 = 10
10 x 6 = 60
10 x 4 = 40
60 – 40 = 20
20 – 16 = 4

He left 4 questions blank.

METHODIST GIRLS' SCHOOL

Founded in 1887

MID-YEAR EXAMINATION 2014
PRIMARY 6

MATHEMATICS

PAPER 1
(BOOKLET A)

Total Time for Booklets A and B: 50 minutes

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.
Follow all instructions carefully.
Answer all questions.
Shade your answers in the Optical Answer Sheet (OAS) Provided.
The use of calculators is **NOT** allowed.

Name: _____ ( )

Class: Primary 6._____

Date: 15 May 2014

This booklet consists of 7 printed pages including this page.

Questions **1** to **10** carry 1 mark each. Questions **11** to **15** carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet.

(20 marks)

---

1. In 2 860 354, which digit is in the ten thousands place?

   (1) 8
   (2) 6
   (3) 3
   (4) 0

2. Mrs Rama baked 140 muffins. She packed the muffins into boxes of 6. How many muffins were left over?

   (1) 1
   (2) 2
   (3) 3
   (4) 4

3. Round off 6.826 to 2 decimal places.

   (1) 6.80
   (2) 6.82
   (3) 6.83
   (4) 6.90

(Go on to the next page)

4. Find the value of 0.47 x 60.

(1) 2.82
(2) 3.22
(3) 28.2
(4) 32.2

5. What is the value of $11 + \frac{4y}{2}$ when $y = 6$?

(1) 12
(2) 16
(3) 23
(4) 34

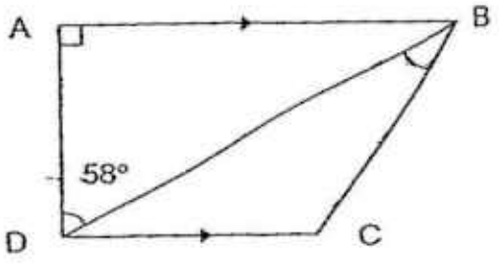
6. There are 45 tarts in a box. 27 of them are egg tarts while the rest are fruit tarts. What is the ratio of the number of egg tarts to the number of fruit tarts in the box?

(1) 2 : 3
(2) 3 : 2
(3) 3 : 5
(4) 5 : 3

7. 25% of a number is 60. What is $\frac{1}{6}$ of the number?

(1) 15
(2) 25
(3) 40
(4) 45

8. In the figure below, ABCD is a trapezium.
AB // DC, DC = CB, $\angle DAB = 90°$ and $\angle ADB = 58°$.
Find $\angle CBD$.

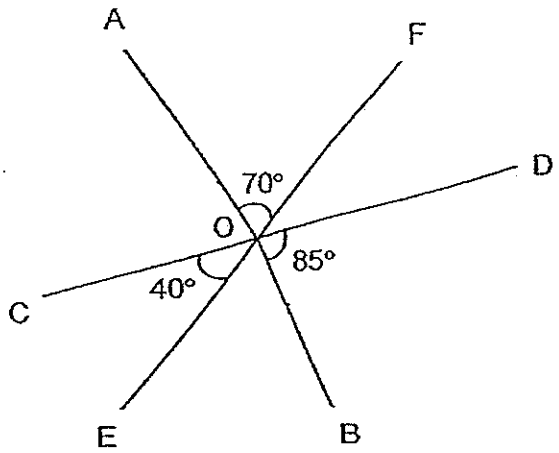


(1) 29°
(2) 32°
(3) 58°
(4) 64°

(Go on to the next page)

9. In the figure below, COD and EOF are straight lines.

Find the sum of ∠EOB and ∠AOC.



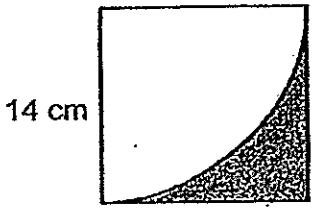
(1) 125°

(2) 140°

(3) 155°

(4) 165°

10. The figure below shows a square and a quadrant. Find the perimeter of the shaded part. (Take $\pi = \frac{22}{7}$)



(1) 22 cm

(2) 36 cm

(3) 50 cm

(4) 56 cm

11. The pupils in a class are grouped equally into Team A and Team B.
The ratio of the number of boys to the number of girls in Team A is 2 : 1 and the ratio of the number of boys to the number of girls in Team B it is 4 : 11.
What is the ratio of the number of boys to the number of girls at the class?

(1) 1 : 2
(2) 7 : 8
(3) 8 : 11
(4) 8 : 13

12. Thelma has $120. This is 20% of the amount of money that Lily has.
How much money does Lily have?

(1) $100
(2) $120
(3) $150
(4) $600

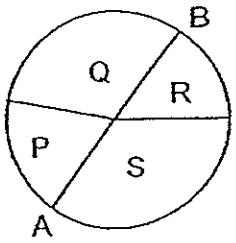
13. Which one of the following fractions is nearest to 1?

(1) $\frac{6}{7}$
(2) $\frac{7}{6}$
(3) $\frac{8}{9}$
(4) $\frac{9}{8}$

14. Mr Tan drove for $1\frac{1}{2}$ h at a speed of 80 km/h. He then drove for another $\frac{1}{2}$ h at a speed of 100 km/h. Find Mr Tan's average speed for the whole journey.

(1) 45 km/h
(2) 70 km/h
(3) 85 km/h
(4) 90 km/h

15. The figure below shows a circle that is divided into 4 parts P, Q, R and S. The line AB is the diameter of the circle. The ratio of Area P to Area Q is 1 : 2 and the ratio of Area R to Area S is 1 : 3. Find the ratio of Area Q to Area S.



(1) 2 : 3
(2) 3 : 2
(3) 8 : 9
(4) 4 : 3

(Go on to Booklet B)

METHODIST GIRLS' SCHOOL

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MID-YEAR EXAMINATION 2014
PRIMARY 6

MATHEMATICS
PAPER 1
(BOOKLET B)

Total Time for Booklets A and B: 50 minutes

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.
Follow all instructions carefully.
Answer all questions.
Write your answers in this booklet.
The use of calculators is **NOT** allowed.

Name: _____ ( )

Class: Primary 6._____

Date: 15 May 2014

Paper 1 Booklet A	**/ 20**
Paper 1 Booklet B	**/ 20**
Paper 2	**/ 60**
TOTAL	**/ 100**

This booklet consists of 8 printed pages including this page.

Questions **16** to **25** carry **1 mark** each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(10 marks)

Do not wr in this spa

16 What is the missing number in the box?

$$35 \times 21 = 16 \times 35 + \boxed{} \times 35$$

Ans: _____

17 Find the value of $50 - 18 \div 3 \times (4 + 3)$.

Ans: _____

18 Express 0.085 as a percentage.

Ans: _____ %

(Go on to the next page)

Do not write in this space

19 In a basket, $\frac{1}{6}$ of the fruits are apples and the rest are oranges.

$\frac{3}{10}$ of the apples are red. There are 15 red apples.

How many fruits are there in the basket?

Ans: _____

20 Mary sold $(3k + 2)$ flowers on Friday. She sold k more flowers on Saturday than on Friday. How many flowers did she sell altogether? Give your answer in terms of k in the simplest form

Ans: _____

(Go on to the next page)

Do not write in this space

21 The price of an eraser is $\frac{3}{5}$ the price of a pen. The price of a ruler is half the price of an eraser. What is the ratio of the price of the pen to the price of an eraser to the price of a ruler?

Ans: _____

22 The ratio of Mary's savings to Charlotte's savings is 5 : 8.
Mary has $360 less than Charlotte. What is the total amount of their savings?

Ans: $ _____

23 Jon walked from his house to the library which was 0.2 km away.
His walking speed was 20 m/min. How long did Jon take to walk to the library?

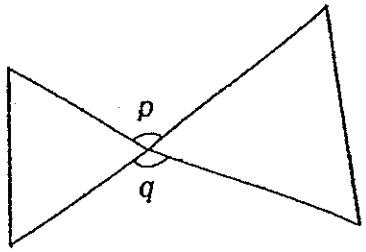
Ans: _____ min

(Go on to the next page)

Do not write in this space

24 The figure below shows 2 equilateral triangles.

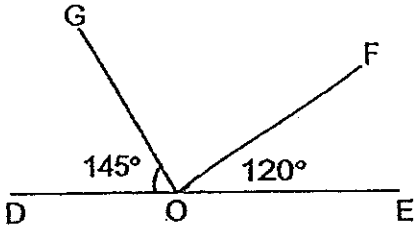
Find the sum of $\angle p$ and $\angle q$.



Ans: _____ °

25 In the figure below, DOE is a straight line.

$\angle DOF = 145°$ and $\angle EOG = 120°$. Find $\angle GOF$.



Ans: _____ °

(Go on to the next page)

Questions **26** to **30** carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

Do not
in this s

26 Every time Jane saved \$4.50 in her piggy bank, her mother would give her another 50 cents. When Jane had \$100 in her savings, how much of it was given by her mother?

Ans: \$ _____

27 There are red, blue and yellow buttons in a box.
The ratio of the number of red buttons to blue buttons is 4:5.
The ratio of the number of yellow buttons to the total number red and blue buttons is 5:6. What fraction of the buttons in the box are blue buttons?

Ans: _____

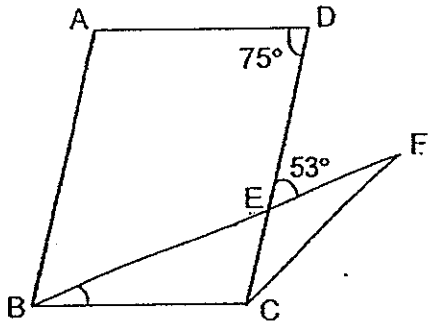
(Go on to the next page)

Do not write in this space

28 Miss Lee bought some pineapple tarts. She gave 30% of the pineapple tarts to her neighbour and ate 40% of the remaining tarts. If she had 84 pineapple tarts left, how many pineapple tarts did she buy?

Ans: _____

29 In the figure below, ABCD is a parallelogram and BCF is an isosceles triangle with BC = CF. BEF is a straight line, $\angle ADC = 75°$ and $\angle DEF = 53°$. Find $\angle CBF$.



Ans: _____ °

(Go on to the next page)

30 Ahmad took 45 minutes to drive from Town A to Town B at an average speed of 80 km/h. After that he took $2\frac{1}{4}$ hours to travel 135 km from Town B to Town C. Find Ahmad's average speed for the whole journey.

Do not v
in this s

Ans: _____ km/h

END OF PAPER

METHODIST GIRLS' SCHOOL

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MID-YEAR EXAMINATION 2014
PRIMARY 6

MATHEMATICS

PAPER 2

Total Time: 1 h 40 min

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.
Follow all instructions carefully.
Answer all questions.
Write your answers in this booklet.
The use of an approved calculator is expected, where appropriate.

Name: _____ ( )

Class: Primary 6_____

Date: 15 May 2014

/ 60

This booklet consists of 15 printed pages including this page.

Questions **1** to **5** carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

Do not in this

1 Sarah had \$500 and Chloe had \$900. After both of them spent an equal amount of money, Sarah had $\frac{1}{5}$ as much as Chloe.

How much did Chloe spend?

Ans: \$ _____

2 Mr Chong bought a television set at \$1 950 after a 35% discount.

What was the original price of the television set?

Ans: \$ _____

(Go on to the next page)

3 Ahmad took 45 minutes to cycle $11\frac{1}{4}$ km. Find Ahmad's average cycling speed in km/h.

Do not write in this space

Ans: _____ km/h

4 A table with 4 columns is filled with numbers in a certain pattern. The first 4 rows of the table are shown below.

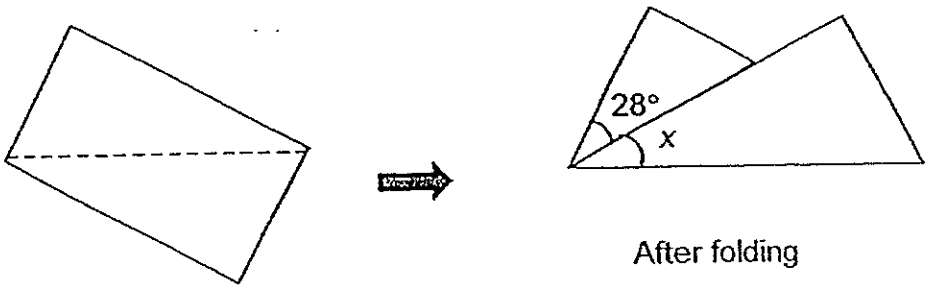
	Column A	Column B	Column C	Column D
Row 1	1	2	3	4
Row 2	8	7	6	5
Row 3	9	10	11	12
Row 4	16	15	14	13
:	:	:	:	:

What is the number in Row 12, Column B?

Ans: _____

(Go on to the next page)

5 John folded a piece of rectangular paper along the dotted line as shown below. Find $\angle x$.



Before folding

After folding

Ans: _____ °

Do i
in th

For Questions **6** to **18**, show your working clearly and write your answers in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question. (50 marks)

Do not write in this space

6 Stella bought some red, yellow and white bows.

The ratio of the number of red bows to the number of yellow bows was 4:1.

The ratio of the number of red bows to the number of white bows was 5:2.

If there were 165 more red bows than yellow bows, how many yellow bows did Stella buy?

Ans: _____ [3]

7 Last year, there were 120 pupils in the computer club. 40% of the pupils were boys. Some boys joined the computer club this year. The percentage of the pupils who ~~were~~ are boys has increased to 52%. How many boys joined the computer club this year?

Ans: _____ [3]

(Go on to the next page)

8 The original selling price of a computer was \$2800. A shop sold it at a discount of 20% during a sale. If the shop charged 7% Goods and Services Tax (GST) on the discounted price, how much was the GST?

Do no in this

Ans: _____ [3]

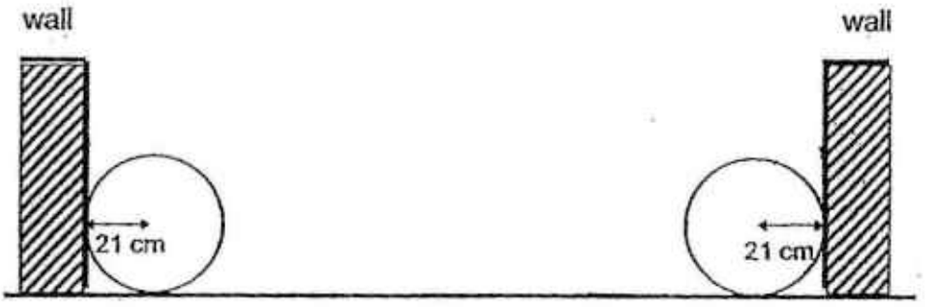
9 In a basket, there were balls of three different sizes: large, medium and small. $\frac{2}{3}$ of the balls were large, $\frac{1}{5}$ of the balls were medium and the rest were small. There were 128 more large balls than small balls.
How many small balls were there?

Ans: _____ [3]

(Go on to the next page)

10 John rolled a hula hoop from one end of the room to the other end of the room. He counted that he could make 5 complete revolutions before the hula hoop touched the wall on the other end. The radius of the hula hoop is 21 cm. Find the distance between the 2 walls of the room. (Take $\pi = \frac{22}{7}$)

Do not write in this space



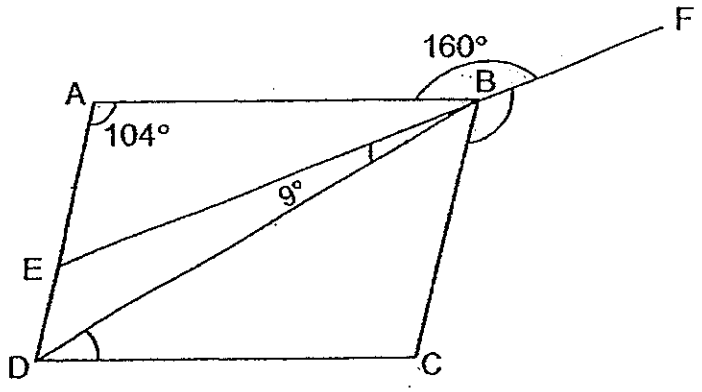
Ans: _____ [3]

(Go on to the next page)

11 In the figure, ABCD is a parallelogram. EBF is a straight line, $\angle DAB = 104°$, $\angle ABF = 160°$ and $\angle DBE = 9°$.

(a) Find $\angle CBF$.

(b) Find $\angle CDB$.



Do not v
in this sp

Ans: (a) _____ [2]

(b) _____ [2]

(Go on to the next page)

12 Mrs Tan baked 185 more chocolate cupcakes than lemon cupcakes.

After selling $\frac{3}{5}$ of the chocolate cupcakes and $\frac{1}{2}$ of the lemon cupcakes, he had 146 cupcakes left. How many cupcakes did she sell?

Do not write in this space

Ans: _____ [4]

(Go on to the next page)

13 Four men carried $2r$ sacks of rice each.

The 5th man carried 6 more sacks of rice than each of the four men.

(a) Find the number of sacks of rice the 5 men carried altogether. Give your answer in terms of r.

(b) The 5th man carried 14 sacks of rice, find the number of sacks of rice the 5 men carried altogether.

Do not in this

Ans: (a) _____ [2]

(b) _____ [2]

(Go on to the next page)

14 Joe and Muthu took part in a 5 km race. Both of them did not change their speeds throughout the race. Muthu ran at a speed of 200 m/min. When Muthu reached the finishing line, Joe was 750 m behind him. What was Joe's speed in km/h?

Do not write in this space

Ans: _____ [4]

(Go on to the next page)

15 Sally had $\frac{3}{4}$ as much money as Zoey. Sally and Zoey shared the cost of a present in the ratio 2 : 3 respectively. Sally used 50% of her money to pay for her share. Zoey had \$84 left after paying for her share.

(a) How much did Sally pay for the present?

(b) What is the cost of the present?

Do no in this

Ans: (a) _____ [3]

(b) _____ [2]

(Go on to the next page)

16 Charles and Lily had some stickers. $\frac{1}{3}$ of Charles' stickers was 160 more than 120% of Lily's stickers. They had a total of 2550 stickers.

How many stickers did Charles have?

Do not write in this space

Ans: _____ [4]

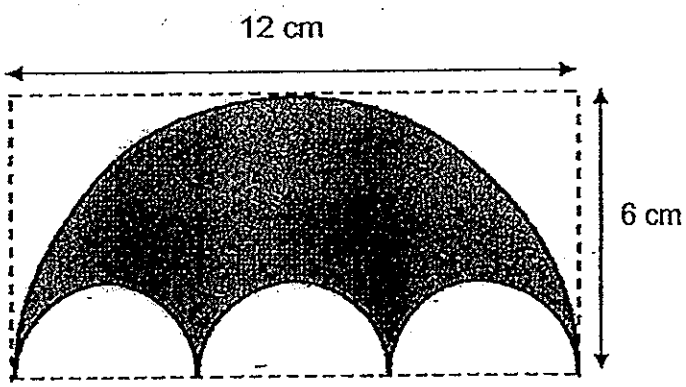
(Go on to the next page)

17 The following figure is cut out from a rectangular piece of cardboard measuring 12 cm by 6 cm. It is made up of a large semicircle and 3 smaller semicircles.

(a) Find the perimeter of the shaded part.

(b) Find the area of the shaded part.

(Take $\pi = 3.14$)



Ans: (a) _____ [2]

(b) _____ [3]

(Go on to the next page)

18 Janice and Marissa had some money.

If Janice spends \$40 per day and Marissa spends \$80 per day, Marissa would have \$500 left by the time Janice spends all her money.

If Janice spends \$80 per day and Marissa spends \$40 per day, Marissa would have \$1100 left by the time Janice spends all her money.

Find the total amount of money Marissa and Janice had at first.

Do not w
in this s

Ans: _____ [5]

END OF PAPER

ANSWER SHEET

EXAM PAPER 2014
SCHOOL : MGS
SUBJECT : PRIMARY 6 MATHEMATICS

TERM : SA1

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
1	3	1	4	1	3	2	2	4	2	2	1	3	1	3

16)202.2 17)0.7 kg 18)2.73 19)208% 20)2/9

21)6 cm^2 22)21 23)1743000 24)24° 25)250°

26)70 % 27)96 28)$\frac{(100y+5)}{2}$ cm 29)3 : 2 30)40°

Paper 2

1)\$30 – \$9 – \$4y
=\$21 – \$4y
= \$(21 – 4y)

2)1u→5
4u→5 x 4 = 20

3)shaded area→(½ x 28 x 12)cm^2 = 168cm^2

4)∠CBE→180° – 27° – 90° = 63°
∠DAB→180° – 63° – 94° = 23°

5)(180° – 36°) x 2 = 288°

6)15 : 4 : 5

7)4 x p + 8 = 4p + 8
6 x p – 68 = 6p – 68
4p + 8 = 6p – 68
6p – 4p = 68 + 8
2p = 76
P = 38

8)½ x 40 x 14 = 280 (unshaded)
Shaded area→280 – (26 x 4) = 176

Us : s
280: 176
=35 : 22
The ratio is 22 : 35

9)50 x 4 = 200
200 – 108 = 92
59 + 33 = 92 (x)
57 + 35 = 92 (√)
ANS: 57

10)$6 x 60 = $360
145 x $2 = $290
$360 – $290 = 70
70 ÷ 2 = 35

11)A→½ x 34cm x 17cm = 289cm^2
B→½ x 17cm x 68cm = 578cm^2
C→½ x 34cm x 34cm = 578cm^2
68cm x 34cm = 2312cm^2
2312cm^2 – 578cm^2 – 578cm^2 – 289cm^2 = 867cm^2

12)a)A→8a + 4
B→8a + 6
M→8A + 33 + 4
8a + 6 + 4 = 8a +10

b)A→8 x 3 + 4 = 28
M→8 x 3 + 33 + 4 = 61
61 + 28 = 89

13)a) $\angle x \rightarrow 180^\circ - 120^\circ - 40^\circ = 20^\circ$

b) $\angle FOG \rightarrow 180^\circ - 40^\circ - 40^\circ = 100^\circ$

$\angle y \rightarrow 360^\circ - 100^\circ = 260^\circ$

14)

M	:	W
500	:	750
(2U)		(3U)
2U		4U
-1U		-2U
4U	:	7U

a) $1U \rightarrow 750 - 500 = 250$

$4u \rightarrow 1000$ (250 x 4)

b) $11u \rightarrow 250 \times 11 = 2750$

15) $A + C \rightarrow 140 - 60 = 80$

$A + B \rightarrow 320 - 60 = 260$

$B + C \rightarrow 380 - 60 = 320$

Diff btwn B & $C \rightarrow 260 - 80 = 180$

$C \rightarrow 320 + 180 = 500$

$\rightarrow 500 \div 2 = 250$

$\rightarrow 250 - 180 = 70$

$A \rightarrow 80 - 70 = 10$

A : C

10: 70

=1 : 7

16) $20u - 400 = 5u - 25$

$20u - 5u = 15u$

$400 - 25 = 375 \rightarrow 15u$

$375 \div 15 = 25 \rightarrow 1u$

$25 \times 9 = 225$

17) \$378 – (\$12x4) = \$330

1 set→ BC + CC

= \$12 + \$18 = \$30

\$330÷\$30 = 11 (sets)

BC→11 + 4 = 15

CC→11

T + L→15 + 11 = 26

18)a)12

b)4

NAN HUA PRIMARY SCHOOL
SEMESTRAL EXAMINATION 1 – 2014
PRIMARY 6

MATHEMATICS

Paper 1

Section A: 15 Multiple Choice Questions (20 marks)

Section B: 15 Short Answer Questions (20 marks)

Total Time for Paper 1: 50 minutes

INSTRUCTION TO CANDIDATES

1. Write your name and index number in the space provided.
2. Do not turn over the page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Shade your answers in the Optical Answer Sheet (OAS) provided for Questions 1-15.
6. You are not allowed to use calculator for Paper 1.

Marks Obtained

Paper 1	Booklet A		/ 40
	Booklet B		
Paper 2			/ 60
Total			/ 100

Name : _____ ( )

Class : _____

Date : 12 May 2014 Parent's Signature : _____

Section A (20marks)

Questions 1 to 10 carry 1 mark each.

Questions 11 to 15 carry 2 marks each.

For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the oval (1, 2, 3 or 4) on the Optical Answer Sheet.

1. Which one of the following numbers is the smallest?

   (1) 0.506

   (2) 0.056

   (3) 0.605

   (4) 0.065

2. Simplify $6 + 5a + 2 - 4a$

   (1) $8 + a$

   (2) $8 - a$

   (3) $8 + 9a$

   (4) $8 - 9a$

3. Express $\frac{633}{1000}$ as a percentage.

   (1) 0.633 %

   (2) 6.33 %

   (3) 63.3 %

   (4) 633 %

4. Express 30 min as a fraction of 3 hours.

(1) $\frac{1}{10}$

(2) $\frac{1}{6}$

(3) $\frac{3}{10}$

(4) $\frac{1}{2}$

5. The product of 35 and 9 when rounded off to the nearest ten is _____.

(1) 300

(2) 310

(3) 315

(4) 320

6. The total mass of Ali and Peter is 36 kg. The mass of John is 36 kg. What is the average mass of the three boys?

(1) 12 kg

(2) 18 kg

(3) 24 kg

(4) 36 kg

7. $\frac{2}{3}$ of Glenn's savings is equal to $\frac{1}{5}$ of his expenditure. Find the ratio of his savings to his expenditure.

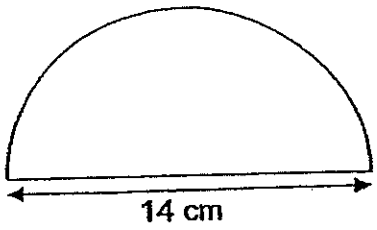
(1) 2 : 1

(2) 3 : 5

(3) 3 : 10

(4) 10 : 3

8. Find the perimeter of the semi-circle with diameter 14 cm as shown in the diagram below. (Take $\pi = \frac{22}{7}$)



(1) 22 cm

(2) 36 cm

(3) 44 cm

(4) 58 cm

9. Jerome had some marbles. 20% of them were blue and the rest were red. He gave away all of his blue marbles and $\frac{1}{4}$ of the red marbles. What percentage of his original number of marbles were given away?

(1) 25%

(2) 30%

(3) 40%

(4) 45%

10. Which one of the following is nearest to 1 on a number line?

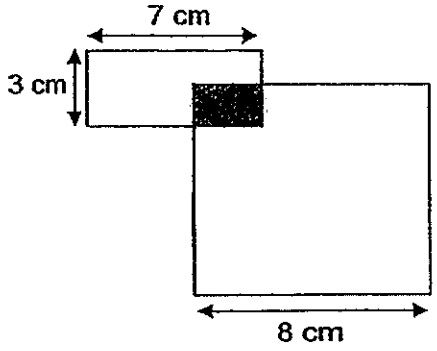
(1) $\frac{4}{5}$

(2) $\frac{5}{6}$

(3) $1\frac{1}{3}$

(4) $1\frac{1}{2}$

11. The diagram below, not drawn to scale, is made up of a rectangle and a square. The shaded area is 5 cm^2. Find the ratio of the shaded area to the unshaded area.



(1) 1 : 15

(2) 1 : 16

(3) 1 : 17

(4) 1 : 18

12. The area of a rectangle is 150 cm^2. The ratio of its length to its breadth is 3 : 2. Find the length of the rectangle.

(1) 10 cm

(2) 15 cm

(3) 60 cm

(4) 90 cm

13. Betty has less than 40 sweets. If she puts them into packs of 4, she will have 3 sweets left. If she puts them into packs of 7, she will be short of 4 sweets. Which of the following is a possible number of sweets she has?

(1) 25
(2) 29
(3) 31
(4) 39

14. Colin drove for $\frac{1}{2}$h at 70km/h. He drove for another $\frac{1}{2}$h at 90km/h. What was the total distance he drove?

(1) 80 km
(2) 160 km
(3) 230 km
(4) 320 km

15. A watch cost \$190 more than a bag. Jessica used $\frac{1}{5}$ of her money to buy the bag and was short of \$40 to buy the watch. How much did Jessica have?

(1) \$220
(2) \$230
(3) \$240
(4) \$250

Section B (20 marks)

Questions 16 to 25 carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. [10 marks]

16. Find the value of $\frac{7}{12} \div 14$.

Give your answer in fraction in the simplest form.

Ans : _____

17. Bryan and Cindy saved a total of \$y. Cindy saved \$5 more than Bryan.

How much did Bryan save in terms of y?

Ans : \$_____

18. The difference between $\frac{2}{3}$ of a number and $\frac{4}{9}$ of the same number is 22.

What is the number?

Ans: _____

Subtotal	/ 3

19. Lily walked from her school to the library, which is 1.5 km away, at an average speed of 50 m/min. How many minutes did Lily take to walk from her school to the library?

Ans : _____min

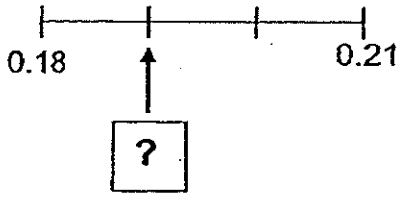
20. Each side of a 10-cm square is increased by 100%.
Find the ratio of the original area to the new area of the square.

Ans : _____ : _____

Subtotal	/ 2

21. The figure below shows a number line.

What is the value indicated by the arrow? Give your answer in decimal.



Ans : _____

22. Janice spent 40% of her salary, gave $\frac{1}{2}$ of it to her parents and saved the rest. She saved $365. How much was Janice's salary?

Ans : $_____

23. The ratio of Amy's savings to Belinda's savings is 2 : 1. The ratio of Belinda's savings to Cleo's savings is also 2 : 1. What is the ratio of Amy's savings to Cleo's savings?

Ans :_____ : _____

Subtotal	/ 3

24. $\frac{1}{10}$ of the pupils in a class were absent. $\frac{5}{7}$ of those who were present passed a test and the rest failed. What fraction of the whole class passed the test? Give your answer in the simplest form.

Ans: _____

25. In the number pattern given below, what is the 100th number?

1 6 8 9 1 6 8 9 1 6 8 9 1 6 8 ...

↑
1st

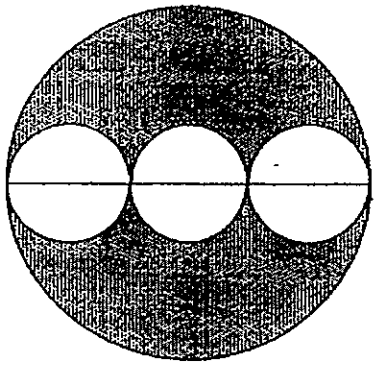
Ans : _____

Subtotal	/2

Questions 26 to 30 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For each questions which require units, give your answers in the units stated. [10 marks]

Do not write in this space

26. The figure below is made up of a big circle and three identical smaller circles. The diameter of the big circle is 4 m. Find the **shaded** area of the figure? (Leave your answer in terms of π)



Ans : _____ m^2

27. At a buffet promotion, for every 3 paying diners, the fourth diner gets to enjoy the buffet free. An employer eats with his 35 staff from ABC Company during the buffet promotion. What fraction of the diners from ABC Company enjoy the buffet for free? Give your answer in the simplest form.

Ans : _____

Subtotal	/ 4

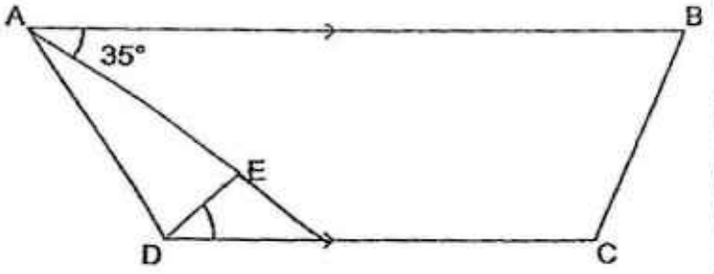
28. Danny and Eunice have some five-cent coins in the ratio 2 : 7.

Given that Eunice has $2 more than Danny, how many five-cent coins does Danny have?

Do not write in this space

Ans: _____ five-cent coins

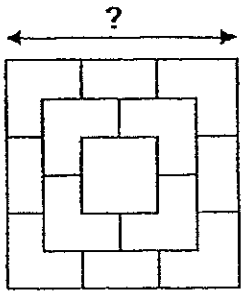
29. The figure below is not drawn to scale. ABCD is a trapezium and ADE is a triangle. Find ∠ AED.



Ans: _____ °

Subtotal	/4

30. The figure below is the top view of a solid figure. The solid figure is made up of 3 layers of identical cubes with a single cube at the top layer. The volume of this figure is 112 cm^3. Find the width of the base of this figure.



Ans:_____ cm

END OF PAPER

Subtotal	/ 2

NAN HUA PRIMARY SCHOOL
SEMESTRAL EXAMINATION 1 – 2014
PRIMARY 6

MATHEMATICS

Paper 2

Total Time for Paper 2: 1 hour 40 minutes

5 Short Answer Questions (10 marks)

13 Structured / Long Answer Questions (50 marks)

INSTRUCTION TO CANDIDATES

1. Write your name and index number in the space provided.
2. Do not turn over the page until you are told to do so.
3. Follow all instructions carefully
4. Answer all questions and show your workings clearly.
5. You are allowed to use a calculator.

Marks Obtained

Total		/ 60

Name : _____ ( )

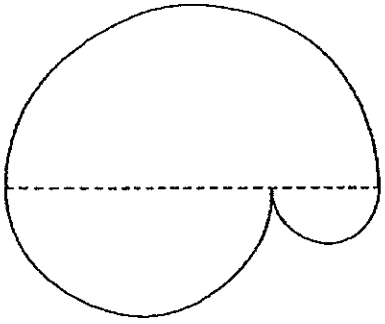
Class : 6 _____

Date : 12 May 2014 Parent's Signature : _____

Paper 2 (60 marks)

Questions 1 to 5 carry 2 marks each. Show your workings clearly in the space below it and write your answer in the space provided. Give your answers in the units stated.

1. The figure below is made up of 3 semi-circles.
The radius of the biggest semi-circle is 7cm.
Find the perimeter of the figure.
(Take $\pi = \frac{22}{7}$)



Ans:_____cm

2. Larry poured some water into 3 containers A, B and C.
A contained 40% of the water.
B contained 50% as much water as A.
C contained 30 l of water.
How much water did Larry pour into containers A, B and C altogether?

Ans:_____l

Subtotal	/4

3. Candy bought 32w beads. She put them equally into 9 boxes and had 6 beads left.

(a) Express the number of beads in each box in terms of w.
(b) Given that the value of w is 3, how many beads were there in each box?

Ans: a) _____[1]

b) _____[1]

4. On Monday, Yang Chin sold 480 kg of rice. The mass of rice sold on Tuesday increased by 15%. What was the mass of rice sold on Tuesday?

Ans:_____ kg

Subtotal	/ 4

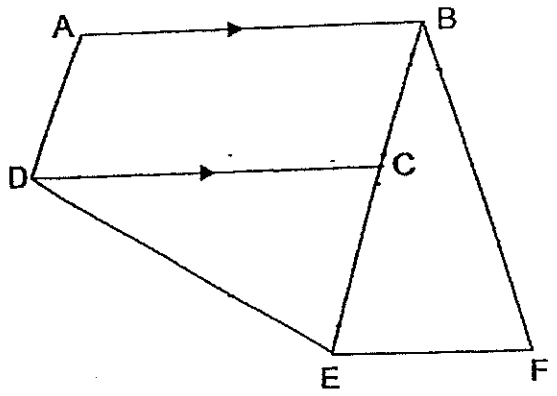
5. Ming has 15 *l* of water in a pail. She pours the water into an empty fish tank measuring 60 cm long, 50 cm wide and 40 cm high. How much water is left in the pail after she has filled the tank with water to a depth of 4 cm?

Ans: _____ *l*

Subtotal	/ 2

For each question from 6 to 18, **show your workings** clearly in the space below it and write your answer in the space provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question.
Remember to include the units wherever possible.

6. In the figure below, ABCD is a trapezium where AB is parallel to DC. CDE and BEF are 2 identical isosceles triangles. DE = DC = BE = BF. Given that ∠DCE is twice of ∠EDC, find ∠ABF.



Ans: _____ [3]

Subtotal	/ 3

7. Shawn spent \$120 on a bag and $\frac{1}{3}$ of the remaining money on a cap. If he had $\frac{2}{5}$ of the original sum of money left, how much money did he have at first?

Ans: _____ [3]

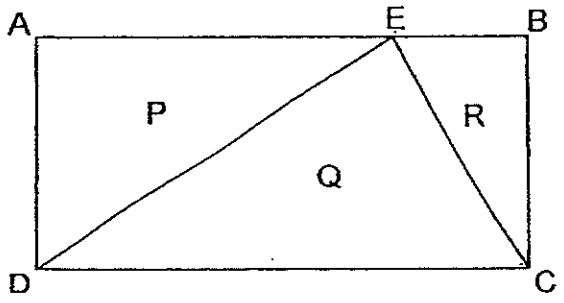
Subtotal	/ 3

8. At noon, a lorry started from Town P and travelled towards Town Q. Three hours later, a car started from Town P and overtook the lorry at 6 p.m. The lorry arrived at Town Q at 10 p.m.
At what time did the car reach Town Q?

Ans: _____ [3]

Subtotal	/ 3

9. The figure below shows a rectangle ABCD which has been divided into 3 parts, P, Q and R. The ratio of the length of AB to that of EB is 7 : 2. The area of P is 72 cm² larger than that of the area of R. Find the area of rectangle ABCD.



Ans: _____ [3]

Subtotal	/ 3

10. The ratio of Ken's savings to Belle's savings is 2 : 3. After each of them had spent \$18 on food, Ken has $\frac{3}{5}$ as much money as Belle.
Find their total savings at the end.

Ans:_____[3]

Subtotal	/ 3

11. The ratio of Anna's salary to Ben's salary to Colin's salary is 4 : 7 : 10. If Anna's salary is increased by 20% and Ben's salary is reduced by 20%, the new total salary is $5100.

Find the total salary of the three children.

Ans: _____ [3]

Subtotal	/ 3

12. At a conference, when 10 women left for the washroom, the ratio of the number of men to the number of women that remained became 1 : 1. If 10 men were to leave for the washroom instead, the ratio of the number of men to the number of women that remained became 3 : 5. How many people attended the conference?

Ans: _____ [4]

Subtotal	/4

13. Ann and Susan went for a dinner. Ann paid 25% of the bill and Susan paid the rest. After paying for the dinner, Susan had $\frac{1}{4}$ of her money left and Ann had \$63 left. The ratio of the amount of money that Susan had at first to the ratio of the amount of money that Ann had at first was 5 : 3. How much did the dinner cost?

Ans: _____ [4]

Subtotal	/ 4

14. Gerald and Bryan ran round a 800 m circular track. Gerald ran at a speed of 215 m/min and Bryan at a speed that was 50 m/min slower than Gerald throughout the race. How many **complete** rounds would Gerald have finished when he had run a distance of 600 m more than Bryan?

Ans: _____ [4]

Subtotal	/ 4

15. Anna, Belinda, Carol and Diana went to buy a birthday gift for Elaine. They shared the cost equally among themselves. However, Diana forgot to bring money. So her friends paid for the gift first. Carol paid $\frac{3}{7}$ of the amount Anna and Belinda paid. Anna paid \$8 more than Belinda. The next day, Diana returned \$6 to Carol and some money to Anna and Belinda. How much money did Diana return to Belinda?

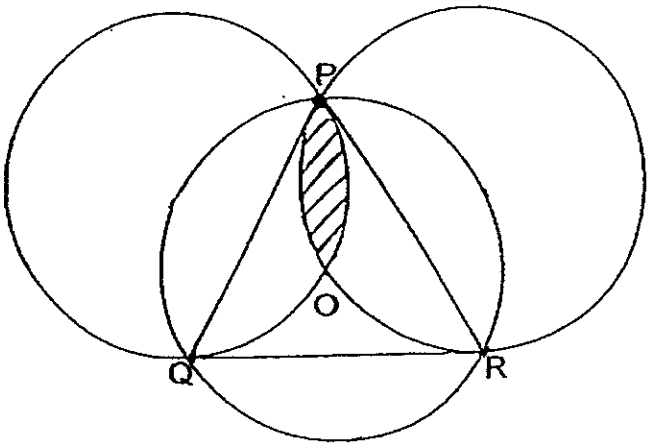
Ans: _____ [5]

Subtotal	/ 5

16. The figure below is made up of 3 identical circles and an equilateral triangle touching the points P, Q and R on the circles. Point O is the centre of the middle circle. Given that the area of the triangle PQR is 45 cm^2 and the diameter of each circle is 12 cm, find the area of the shaded part.

(Take $\pi = 3.14$)

(Give your answer correct to 2 decimal places)



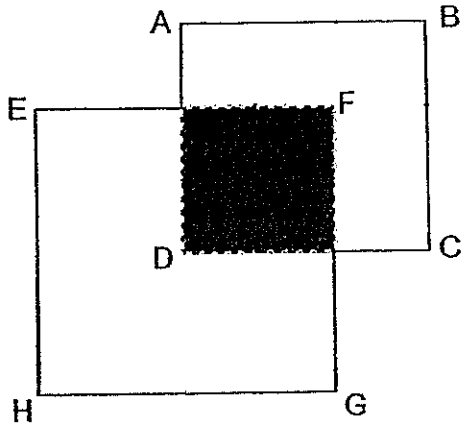
Ans: _____ [5]

Subtotal	/5

17. The figure below, not drawn to scale, is made up of 2 overlapping squares (ABCD and EFGH). $\frac{1}{4}$ of the square EFGH and 36% of the square ABCD is shaded.

a) What fraction of the figure is unshaded?
Give your answer in the simplest form.

b) If the difference in area between the 2 squares (ABCD and EFGH) is 44 cm^2, what is the total perimeter of the figure?



Ans: a)_____ [3]

b)_____ [2]

Subtotal	/ 5

18. A fruiterer packed some apples into 44 big carton boxes and 16 small carton boxes. There were 28 more apples in a big carton box than in a small box. The ratio of the number of apples packed into big carton boxes to the number of apples packed into small carton boxes was 3 : 1. How many apples did the fruiterer pack altogether?

Ans: _____ [5]

End of Pape 2

Remember to check your work.

Subtotal	/ 5

ANSWER SHEET

EXAM PAPER 2014
SCHOOL : NAN HUA
SUBJECT : PRIMARY 6 MATHEMATICS

TERM : SA1

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
2	1	3	2	4	3	3	2	3	2	1	2	3	1	4

16)1/24 **17)$(Y-5/2)** **18)99** **19)30 min** **20)1 : 4**

21)0.19 **22)$3650** **23)4 : 1** **24)9/14** **25)9**

26)($2\frac{2}{3}\Pi$) **27) ¼** **28)16** **29)85°** **30)6**

Paper 2

1)22/7 x 7 x 2 = 44 cm

2) A : B : C
40% 20% 30L

100% - 40% - 20% = 40%
40% → 30L
10% → 30L÷4= 7.5L
100% → 7.5L x 10 = 75L

3)a)$\frac{32w - 6}{9}$

b)32 x 3 = 96
$\frac{96 - 6}{9}$ = 10

4)100% + 15% = 115%
115% x 480 = 552 kg

5)60 x 50 x 4 = 12000
12000cm2→12L
15L – 12L = 3L

6)5x→180
x→180÷5= 36
2x→36 x 2 = 72
72 + 36 = 108°

7)$120÷2 = $60
$60 x 5 = $300

8)

	Car	:	Lorry
Time	3	:	6
Speed	3	:	6

6pm ——→ 10pm
4h

6u→4
3u→4/6 x 3 = 2
6pm ——→ 8pm
2h

9)Assume breadth of rectangle is 4u

5u x 4u x ½ = 10u
2u x 4u x ½ =4u
10u – 4u = 6u
5u + 2u = 7u
7u x 4u = 28u
6u→72 cm2
1u→72 cm2÷6 = 12 cm2
28u→12 cm2 x 28 = 336 cm2

10)4p – 3p = 1p
1p→$18
8p→$18 x 8 = $144

11)4 x 120% = 4.8
100% - 20% = 80%
7 x 80% = 5.6
4.8u + 5.6u +10u→5100
20.4u→5100
u→5100÷20.4 = 250
4u + 7u + 10u→250 x 21 = $5250

12)1u→10
8u→10 x 8 = 80
80 + 10 = 90

13)7u→$63
1u→$63÷7u = $9
20u→$9 x 20 = $180

14)215 – 50 = 165 (speed of Bryan)
600÷50 = 12
12 x 215 = 2580
2580÷800 = 3 r 180

15)12u – 10u = 2u
2u→6
28u – 20u = 8u
1u→6÷2 = 3
8u→3 x 8 = 24
$\frac{24 - 8}{2}$ = $8

16)45 x 1/3 = 15
1/3 x 3.14 x 6 x 6 = 37.68
37.68 – 15 = 22.68
22.68 – 15 = 7.68 cm^2

17)a)25 – 9 = 16
36 – 9 = 27
27 + 16 : 27+9+16
= $\frac{43}{52}$

17)b)36u – 25u = 11u

11u→44

u→44÷11 = 4

25u→4 x 25 = 100

/100 = 10

36u→4 x 36 = 144

/144 = 12

10 x 2 = 20

12 x 2 = 24

6 x 2 = 12

10 – 6 = 4

4 x 2 = 8

24+20+12+8 = 64cm

18)3p→44A + 1232

1p→16A x3

3p→48A x3

44A + 1232→48A

4A→1232

A→308

48A→14784

14784 +16 x 308 = 19712

NANYANG PRIMARY SCHOOL

FIRST SEMESTRAL EXAMINATION 2014

PRIMARY 6

MATHEMATICS

PAPER 1

DURATION: 50 MINUTES

Booklet A	/ 20
Booklet B	/ 20

Paper 1 Total: / 40

Name: _____ ( )

Class: Primary 6 ( )

Date: 9th May 2014

Parent's Signature:_____

Any query on marks awarded should be raised by 20 May 2014. We seek your understanding in this matter as any delay in the confirmation of marks will lead to delays in the generation of results.

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FOLLOW ALL INSTRUCTIONS CAREFULLY.

ANSWER ALL QUESTIONS. YOU ARE **NOT** ALLOWED TO USE A CALCULATOR.

PAPER 1 (BOOKLET A)

Questions **1** to **10** carry 1 mark each. Questions **11** to **15** carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the oval (1, 2, 3 or 4) on the Optical Answer Sheet.

(20 marks)

---

1 Which one of the following is the lowest common multiple of 4 and 6?

(1) 1

(2) 2

(3) 12

(4) 24

2 Find the value of $349 \div 8$.

(1) 43

(2) 43.5

(3) 43.525

(4) 43.625

3 Peter's salary of $3000 was increased by 20%. How much is his salary now?

(1) $360

(2) $600

(3) $2400

(4) $3600

4 Roy draws a 4-sided figure. Only one pair of its opposite sides is parallel.

Which one of the following is the name of the 4-sided figure that Roy has drawn?

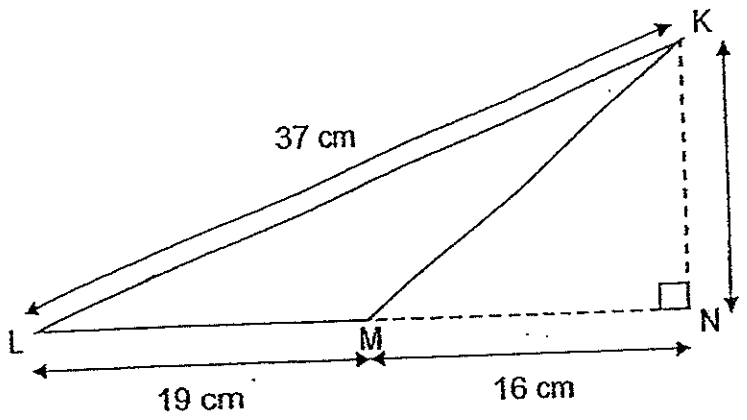
(1) Parallelogram

(2) Rectangle

(3) Rhombus

(4) Trapezium

5 In the figure below, LMN is a straight line.
What is the area of triangle KLM?



(1) 84 cm^2

(2) 114 cm^2

(3) 222 cm^2

(4) 228 cm^2

6 Simplify the following algebraic expression.

$$18 + 13a + 2 - 10a$$

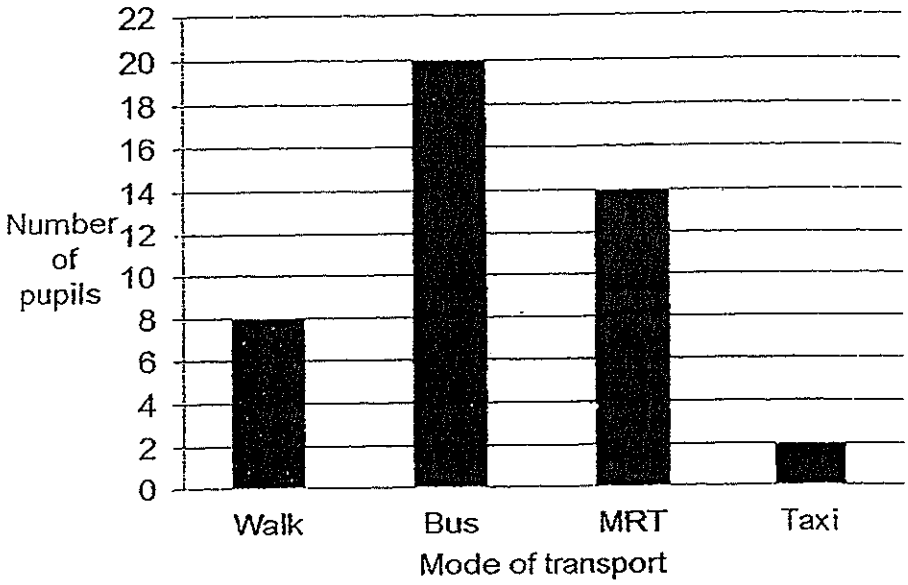
(1) $16 + 3a$

(2) $16 - 3a$

(3) $20 + 3a$

(4) $20 - 3a$

7 The graph below shows how a group of pupils travels to school. How many more pupils take bus and MRT than walk to school?



(1) 12

(2) 26

(3) 34

(4) 44

8 Mary bought some flour. She used $\frac{1}{3}$ of the flour to bake a cake and $\frac{2}{5}$ of the flour to make some muffins. What fraction of the flour was left?

(1) $\frac{2}{3}$

(2) $\frac{4}{5}$

(3) $\frac{4}{15}$

(4) $\frac{11}{15}$

9 Miss Lee bought a refrigerator for \$1070, inclusive of 7% GST. How much did she pay for the GST?

(1) \$10

(2) \$70

(3) \$1000

(4) \$1040

10 In a box, there are only red and blue marbles. The ratio of the number of red marbles to the number of blue marbles is 3 : 5. There are 60 red marbles. How many marbles are there in the box?

(1) 20

(2) 40

(3) 100

(4) 160

11 Find the perimeter of a semicircle of radius 10 cm.

(Take $\pi = 3.14$)

(1) 31.4 cm

(2) 41.4 cm

(3) 51.4 cm

(4) 62.8 cm

12 Arrange the following numbers from the largest to the smallest.

7. . 7.7, 7.07

(1) 7.7 , 7.07 , 7

(2) 7.7 , 7 , 7.07

(3) 7 , 7.07 , 7.7

(4) 7.07 , 7.7 , 7

13 Sam had $\frac{2}{3}$ as many stickers as John. John had $\frac{7}{4}$ as many stickers as Peter. Peter had 24 stickers. What was the total number of stickers Sam and John had?

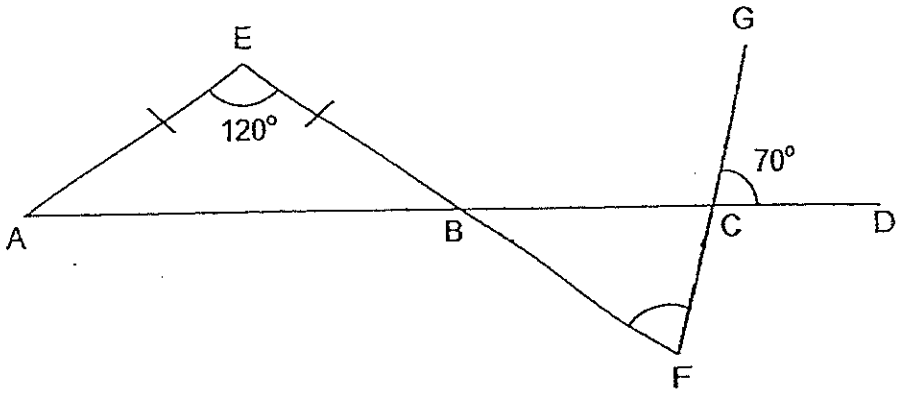
(1) 52

(2) 66

(3) 70

(4) 94

14 In the figure below, ABCD, EBF and FCG are straight lines. $\angle AEB = 120°$, $\angle DCG = 70°$ and EA = EB. Find $\angle EFG$.



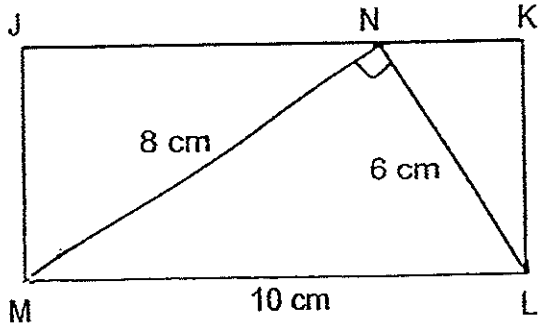
(1) 80°

(2) 70°

(3) 60°

(4) 50°

15 In the figure below, JKLM is a rectangle and MNL is a right-angled triangle. MN = 8 cm, LN = 6 cm and LM = 10 cm. Find the length of KL.



(1) 2.4 cm

(2) 4.8 cm

(3) 3 cm

(4) 4 cm

Name: _____( ) Class: Pr 6 ( )

P6 SA1 2014

PAPER 1 (BOOKLET B)

Questions **16** to **25** carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(10 marks)

---

16 Belinda is $3k$ cm tall. Sharon is 3 times as tall as Belinda. Express the total height of the two girls in terms of k.

Ans: _____ cm

---

17 Find the difference between 4182 and 7609.

Ans: _____

---

18 Find the value of $24 - (5 + 8) - 3 + 2 \times 2$.

Ans: _____

---

19 Express $3\frac{3}{50}$ as a decimal.

Ans: _____

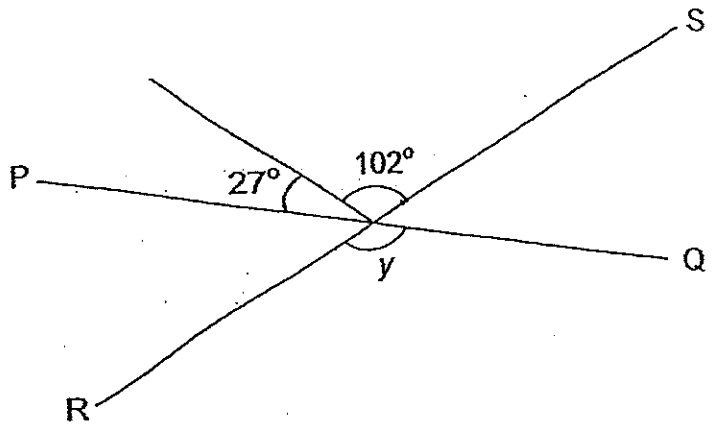
20 Round off 766.849 to the nearest tenth.

Ans: _____

21 Express 5.5 cm in metres.

Ans: _____ m

22 In the figure below, PQ and RS are straight lines. Find $\angle y$.

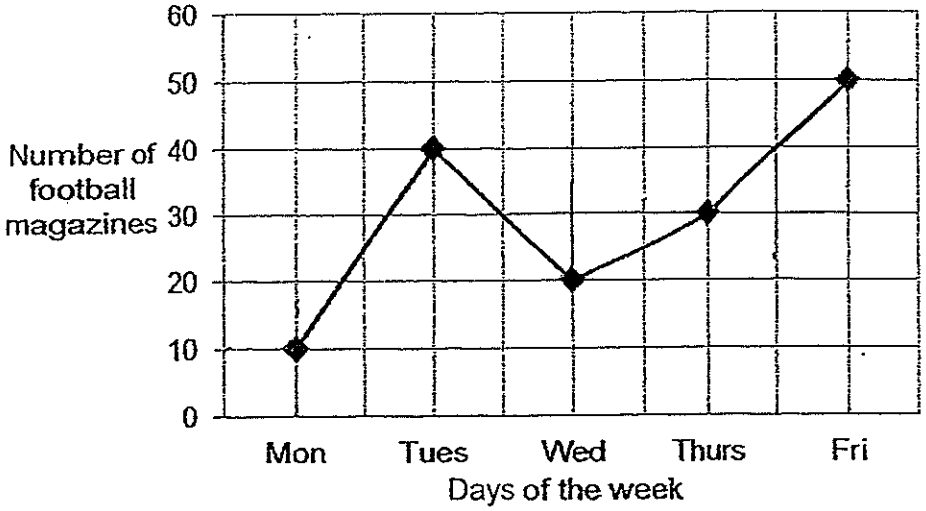


Ans: _____ °

23 Pauline has $20 000 in a bank which pays 3% interest at the end of each year. Find the amount of interest Pauline gets in a year.

Ans: $_____

24 The graph shows the number of football magazines sold during a 5-day period. What is the total sales for the 5 days when each magazine costs $3?



Ans: $_____

25 The ratio of Mei Mei's money to Li Li's money was 3 : 2. After Mei Mei spent $30, the ratio became 4 : 3. How much money did Mei Mei have at first?

Ans: $_____

Questions **26** to **30** carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(10 marks)

---

26 The total mass of 600 identical paper clips is 522 g.
What is the total mass of 30 such paper clips?

Ans: _____ g

---

27 At first, ~~at first?~~ Mrs Tan spent $\frac{1}{4}$ of her money on food and \$50 on transport.

She had $\frac{1}{3}$ of her money left. How much money did she have at first?

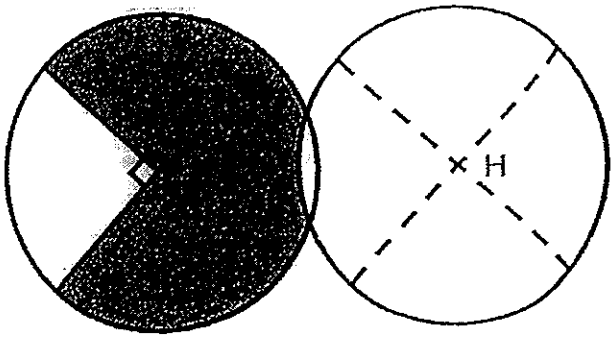
Ans: \$_____

---

28 A jar filled with 300 identical marbles weighed 6150 g.
The same jar when filled with 100 such marbles weighed 2550 g.
What was the total mass of 400 such marbles?

Ans: _____ g

29 The figure below shows two identical circles with centres at G and H.
The radius of the circle is 14 cm. Find the perimeter of the shaded part. (Take $\pi = \frac{22}{7}$)



Ans: _____ cm

30 Bala bought two watermelons and five mangoes. The average mass of the watermelons is 3 kg 500 g and the average mass of the mangoes is 600 g. Find the total mass of the fruits he bought. Express your answer in kg.

Ans: _____kg

END OF PAPER

NANYANG PRIMARY SCHOOL

FIRST SEMESTRAL EXAMINATION 2014

PRIMARY 6

MATHEMATICS

PAPER 2

DURATION: 1 HOUR 40 MINUTES

Paper 2 Total	/ 60
GRAND TOTAL	/ 100

Name: _____ ( )

Class: Primary 6 ( )

Date: 9th May 2014

Parent's Signature: _____

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PAPER 2

Questions **1** to **5** carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(10 marks)

---

1 Cindy has a total of 210 balls in a box. She has 42 red balls, 28 green balls and the rest are yellow balls. What is the ratio of the number of red balls to the number of yellow balls? Leave your answer in the simplest form.

Ans: _____

---

2 Samantha saved $\$m$. Doris saved $\$(40 + m)$ more than Samantha. Julie saved \$24 less than Doris. Find the total savings of the three girls when $m = 50$.

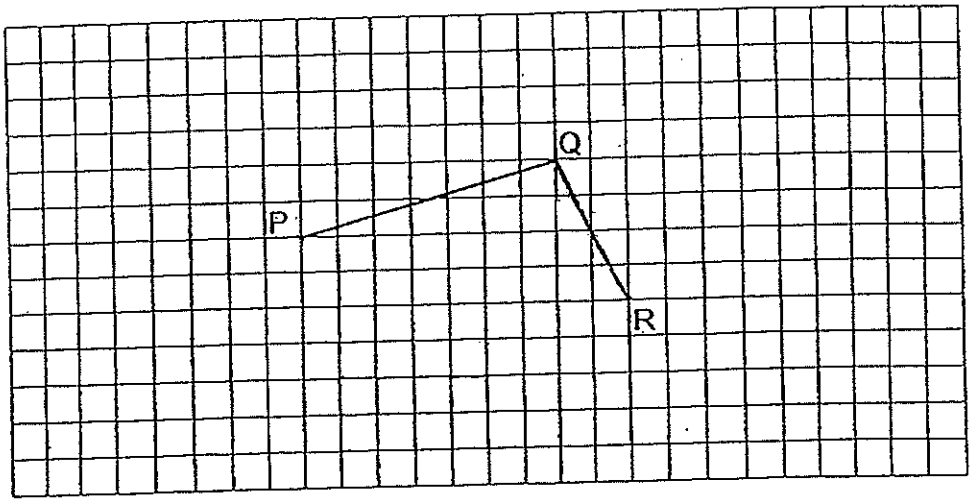
Ans: \$_____

---

3 Jake's salary is half of Ali's salary but thrice of Kumar's salary. Express Kumar's salary as a fraction of Ali's salary.

Ans: _____

4 Two sides of a parallelogram PQRS have been drawn in the square grid shown below. Complete the drawing of the parallelogram PQRS.



5 The perimeter of a rectangle is 336 cm. Its length is thrice its breadth. Find its length.

Ans: _____ cm

For questions **6** to **18**, show your working clearly in the space provided for each question and write your answers in the spaces provided.
The number of marks available is shown in brackets [ ] at the end of each question or part-question.

(50 marks)

---

6 Mrs Rajaratnam has 12.5 m of thread. She cuts the thread equally into shorter pieces. Each of the shorter pieces measures 2 m.

(a) How many 2-m pieces are there?

(b) What is the length of the remaining piece?

Ans: (a) _____ [1]

(b) _____ [2]

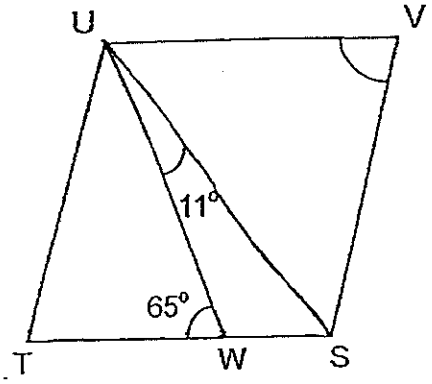
---

7 $\frac{1}{4}$ of Abdullah's age is equal to $\frac{2}{3}$ of Hussein's age. The ratio of Hussein's age to Siti's age is 2 : 3. Abdullah is 42 years older than Siti. How old is Hussein?

Ans: _____ [3]

---

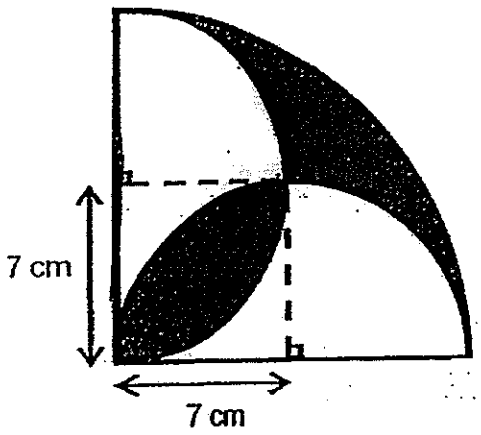
8 In the figure below, STUV is a rhombus.
$\angle UWT = 65°$ and $\angle WUS = 11°$. Find $\angle SVU$.



Ans: _____ [3]

---

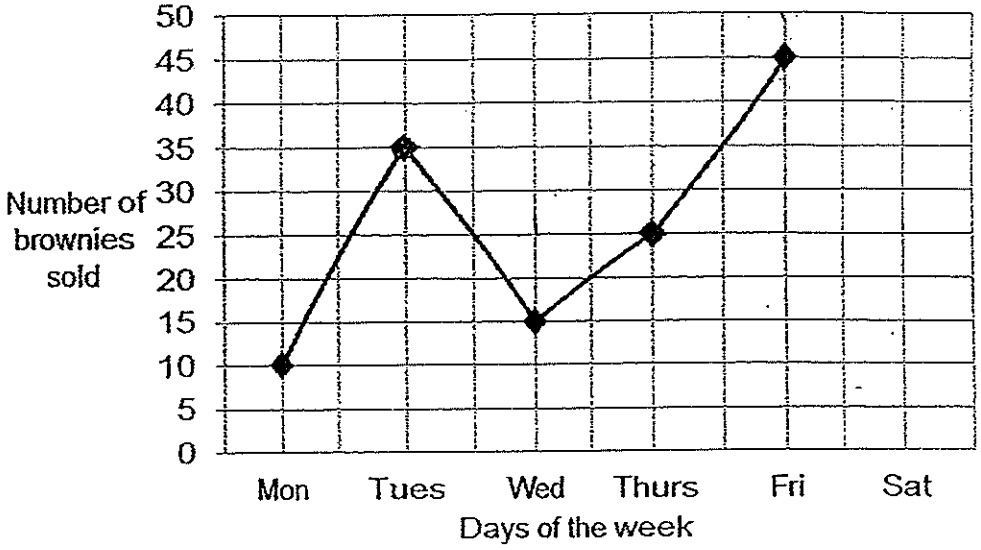
9 The figure below is made up of a quadrant and 2 identical semicircles. The radius of the semicircle is 7 cm. Find the total area of the shaded parts.
(Take $\pi = \frac{22}{7}$)



Ans: _____ [3]

---

10 The graph shows the number of brownies sold by Mrs Smith from Monday to Friday. Each brownie was sold for the same price. The total amount of money collected for the first 5 days of the week was $520. She collected $200 on Saturday. How many brownies did she sell on Saturday?



Ans: _____ [3]

11 Melissa collected some beads. 20% of them were golden beads. $\frac{9}{20}$ of them were silver beads and the rest were bronze beads. There were 300 more bronze beads than golden beads. How many beads did she collect altogether?

Ans: _____ [4]

12 Justina had 72 more Singapore stamps than Malaysian stamps. She gave away some Singapore and Malaysian stamps. The number of Singapore stamps she gave away was $\frac{3}{4}$ of the number of Malaysian stamps she had at first. The number of Malaysian stamps she gave away was $\frac{1}{2}$ the number of Singapore stamps she had at first. In the end, she had an equal number of each type of stamps. How many Singapore stamps did Justina have at first?

Ans: _____ [4]

13 Look at the pattern below carefully.

(a) Draw the ♡ in the correct position(s) in the 35th column. [1]

♡		♡	♡	♡		♡	♡	♡		
	♡	♡	♡		♡	♡	♡			
♡		♡		♡		♡		♡		
1st	2nd	3rd	4th	5th	6th	7th	8th	9th	...	35th

(b) What is the total number of ♡ in the first 43 columns?

Ans: (b) _____ [3]

14 The number of toy cars Keith had was $\frac{1}{5}$ the number of paper aeroplanes. After he gave $\frac{1}{2}$ of his paper aeroplanes and $\frac{1}{3}$ of his toy cars to his brother, he had 286 more paper aeroplanes than toy cars.

(a) How many toy cars did Keith have in the end?

(b) How many toy cars and paper aeroplanes did Keith have at first?

Ans: (a) _____ [3]

(b) _____ [2]

15 In a boutique, 40% of the clothing are dresses. 70% of the remainder are skirts and the rest are pants. There are 30 more skirts than dresses. After some dresses are sold, 25% of the remaining clothing in the boutique are dresses. How many dresses are there left in the boutique?

Ans: _____ [5]

16 The ratio of Isabella's savings to Joanna's savings was 9 : 8. Isabella and Joanna shared the cost of buying a birthday present for their grandmother in the ratio of 2 : 1 respectively. Isabella used up $\frac{2}{3}$ of her savings to pay for her share of the present. Joanna was left with \$150 after paying her share.

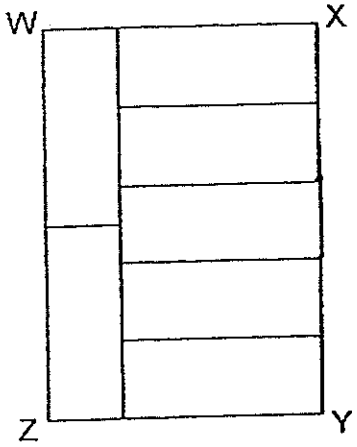
(a) How much was Joanna's savings?

(b) What was the cost of the present?

Ans: (a) _____ [4]

(b) _____ [1]

17 The figure below shows Rectangle WXYZ which is made up of 7 identical small rectangles. The area of a circle with radius 56 cm is 2.2 times the area of Rectangle WXYZ. Find the perimeter of Rectangle WXYZ. (Take $\pi = \frac{22}{7}$)



Ans: _____ [4]

18 Meng has a total of 1296 black and white buttons. He has 720 more black buttons than white buttons. He puts all the black buttons equally into empty black boxes and puts all the white buttons equally into empty white boxes. There are thrice as many black boxes as white boxes. Each black box contains 4 more buttons than each white box. How many buttons are there in each white box?

Ans: _____ [4]

END OF PAPER

Nanyang Primary School
Primary 6 – Mathematics
SA 1 – 2014
Answer Key

Paper 1:

Section A:

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
3	4	4	4	2	3	2	3	2	4
Q11	Q12	Q13	Q14	Q15					
3	1	3	1	2					

Section B:

Q16. 12k

Q17. 3427

Q18. 12

Q19. 3.06

Q20. 766.8

Q21. 0.055

Q22. 129

Q23. $600

Q24. $450

Q25. $270

Q26. 26.1

Q27. $120

Q28. 7200g

Q29. 94cm

Q30. 10kg

Paper 2:

Q1. R→42
G→28
Y→140

R : Y
42:140
→ 3:10

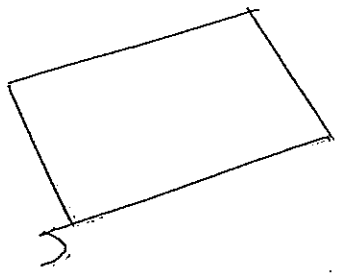
Q2. S→ $50
D→40 ÷ (50x2)
J→16 ÷ (50x 2)

$116 + $140 + $50 → $306

Q3. J : A : K
1 : 2
3 : 6 : 1

K : A
→ 1:6

Q4.



Q5. L : B
2 : 1
3 : 1

Total: (Lx2) + (Bx2) → 336
3x 2 + 1 x 2 =8
336 ÷ 8 = 42
42 x 3 → 126cm

Q6a) $12.5 \div 2 = 6$ R0.5
→ 6

Q6b) $12.5 - 12 = 0.5$m

Q7) 1/4 of A = 2/3 of H
2/8 of A = 2/3 of H

A → 8 units
H → 3 units

A → 16 units
H → 6 units
S → 9 units

16 units – 9 units = 7 uits
42 = 7 units
6 units → 36

Q8. Angle WUV → 65°
Angle SUV → 65 -11 = 54
Angle UWS → 180 – 65 = 115
Angle USW → 180 -11 -115 = 54
Angle SVU → 180 – 54 -54 → 72°

Q9. 7 x2 – 14
¼ x 14 x 14 x 22/7 → 154

2 x ¼ x 7 x 7 x 22/7 = 77
$77 \div 2 = 38.5$

7 x 7 = 49
49 – 38.5 = 10.5
10.5 x 2 = 21

154 – 21 – 77 → 56cm²

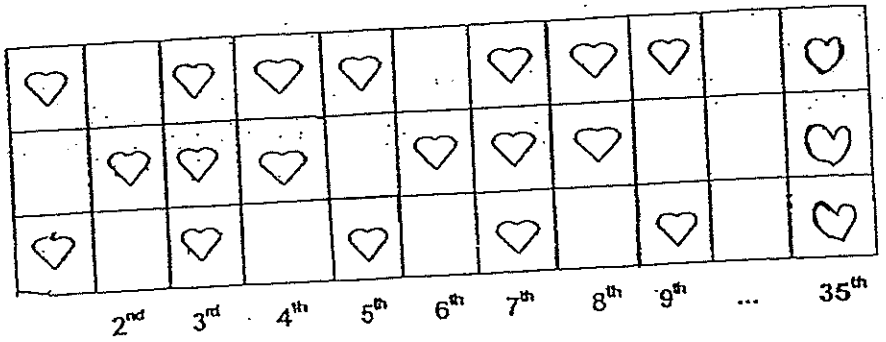
Q10. 45 + 25 + 15 + 35 + 10 = 130
$520 ÷ 130 = $4 (1 brownie)
$200 ÷ $4 → 50

Q11. Total: 20 units
Silver → 9
Gold → 4
Bronze → 7

2 units → 300
1 unit → 100
20 units → 2000

Q12. $72 \div 36 = 108$
$108 = 1$ unit
4 units → 432
$432 \div 72$ → 504

Q13a)



Q13b) Every 4 column → $2 \div 1 \div 3 \div 2$
→ 8

Every 40 column → 80

$80 \div 2 + 1 + 3$ → 86

Q14a)

TC	:	PA		TC	:	PA
1	:	5		6	:	30
				-1/3		-1/2
Left				4	:	15

$15 - 4 = 11$
11 units → 286
1 unit → 26

3 units → 104

Q14b) At first: 36 units

26×26 → 936

Q15)

Total
- 4/10 (Dress)
- 6/10 (Remainder)
  - 70% (Skirts) 4.2 units
  - 30% (Pants)

0.2 units → 30
1 unit → 150
6 units → 900

900 ÷ 75 x 25 → 300

Q16a)

	I	:	J	Spent I : J
	9	:	8	2 : 1
Used	6	:	3	
Left	3	:	$150	

4 units → $150
1 unit → $30
8 units → $240

Q16b) left 9 units
1 unit → $30
9 units → $270

Q17) 22/7 x 56 x 5 ÷ 2.2 = 4480
4480 ÷ 7 = 640

2.5 units x 1 unit – 2.5 units²

640 ÷ 2.5 = 256
256 = 16 x 16

3.5U ÷ 56
3.5 x16 = 56

(80 + 56) x 2 → 272cm

Q18. B → $\frac{1296 - 720}{2}$ ÷ 720 → 1080

W → $\frac{1296 - 720}{2}$ → 288

1008÷ 3 = 336
336 – 288 = 48

48 ÷ 4 = 12
288 ÷ 12 → 24

RAFFLES GIRLS' PRIMARY SCHOOL
SEMESTRAL ASSESSMENT 1
MATHEMATICS (PAPER 1)
PRIMARY 6

Name: _____ ( )

Form Class: P6 _____ Banded Math Class: P6 _____

Date: 8 May 2014 Duration: 50 min

Your Score	
Paper 1 (Out of 40 marks)	
Paper 2 (Out of 60 marks)	
Overall (Out of 100 marks)	

INSTRUCTIONS TO CANDIDATES

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer **ALL** questions and show all working clearly.
4. **NO** calculator is allowed for this paper.

SECTION A (20 marks)

Questions 1 to **10** carry 1 mark each. Question **11** to **15** carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade your answer (1, 2, 3 or 4) on the OAS provided. All diagrams are not drawn to scale.

---

1. What is the missing value in the box?

$$1393 \times 1\,000 = \boxed{} \times 10$$

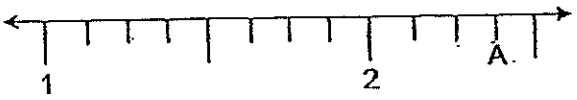
(1) 13.93

(2) 139.3

(3) 13930

(4) 139300

2. Study the number line below.



What is the value represented by A?

(1) $\frac{3}{8}$

(2) $\frac{3}{4}$

(3) $2\frac{3}{8}$

(4) $2\frac{3}{4}$

3. Which of the following is the same as 4010 g?

(1) 0.401 kg

(2) 4.01 kg

(3) 40.10 kg

(4) 401.0 kg

4. Steven is paid \$(8 + 3x) hourly for his job. He works 8 hours a day.
If $x = 7$, what is his daily salary?

(1) \$29

(2) \$88

(3) \$144

(4) \$232

5. A box contained red, green and blue balls.
For every 4 red balls sold, 7 green balls were sold.
For every 3 blue balls sold, 5 green balls were sold.
Find the ratio of the number of red balls sold to the number of green balls sold to the number of blue balls sold.

(1) 20 : 35 : 21

(2) 21 : 35 : 20

(3) 24 : 21 : 35

(4) 20 : 24 : 21

6. Which of the following fractions is the greatest?

(1) $\frac{4}{3}$

(2) $\frac{13}{5}$

(3) $\frac{15}{8}$

(4) $\frac{18}{9}$

7. Express 0.28 as a fraction.

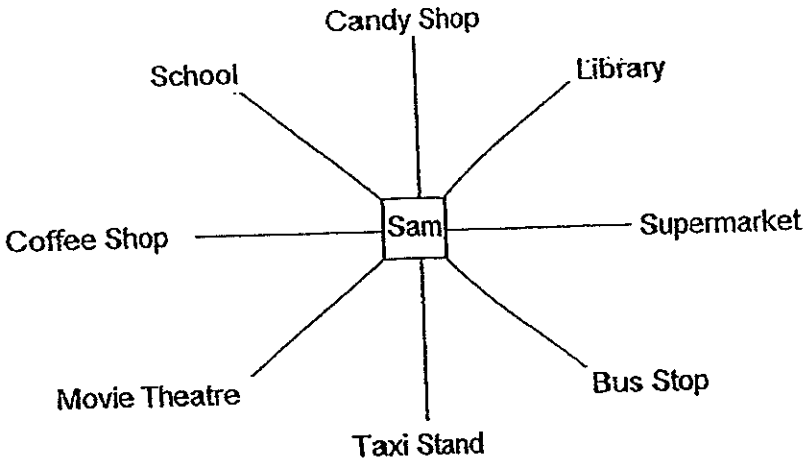
(1) $\frac{7}{250}$

(2) $\frac{7}{25}$

(3) $1\frac{7}{250}$

(4) $1\frac{7}{25}$

8. In the figure below, Sam is standing in the centre and is facing the library. Which place will he be facing when he turns 135° anti-clockwise?



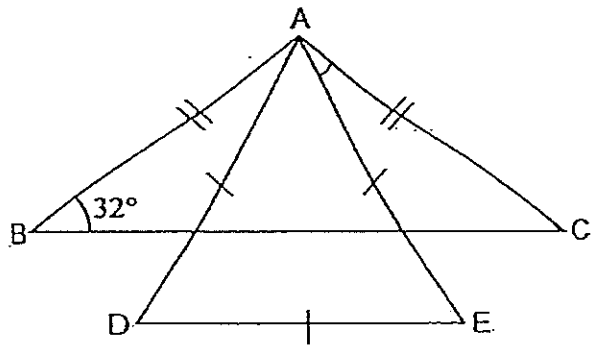
(1) Bus Stop

(2) Taxi Stand

(3) Candy Shop

(4) Coffee Shop

9. In the figure below, ABC is an isosceles triangle and ADE is an equilateral triangle. $\angle ABC$ is 32° and $\angle BAD = \angle CAE$. Find $\angle CAE$.



(1) 28°

(2) 32°

(3) 56°

(4) 64°

10. Express 10¢ as a percentage of $10.

(1) 1%

(2) 10 %

(3) 100 %

(4) 1000 %

11. Joelle has some red and blue pens. Her red pens are in bundles of 8 and her blue pens are in bundles of 9. The difference between the total number of red pens and blue pens is 37. There are 10 bundles of red pens altogether. How many bundles of blue pens are there?

(1) 13

(2) 43

(3) 109

(4) 117

12. At first, there were 1.6ℓ more water in Tank A than in Tank B. After an equal amount of water was poured out from both tanks, the amount of water left in Tank A was thrice the amount of water left in Tank B.
If a total of 2ℓ of water was poured out, find the amount of water in Tank B at first.

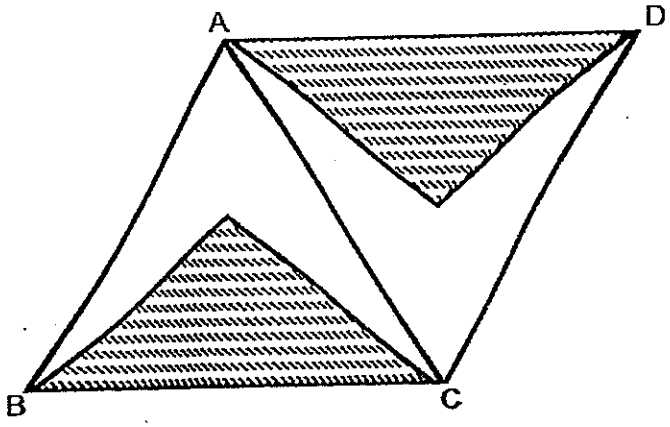
(1) 0.8 ℓ

(2) 1.8 ℓ

(3) 2.6 ℓ

(4) 2.8 ℓ

13. Figure ABCD is made up of 2 identical triangles, ABC and ACD, each with a shaded triangle in it.
The height of the triangle ABC is twice the height of the shaded triangle in it.
The area of each shaded triangle is 14 cm^2.
Find the unshaded area of figure ABCD.



(1) 14 cm^2

(2) 28 cm^2

(3) 42 cm^2

(4) 56 cm^2

14. Sally had 340 beads. 70% of them were gold and 50% of the remainder were silver. The rest were purple. How many purple beads did she have?

(1) 51

(2) 102

(3) 170

(4) 238

15. Some beads are packed into packets of 5 or 7. If the ratio of the number of packets to the number of beads is 5 : 29, what fraction of the packets contain 7 beads?

(1) $\frac{1}{5}$

(2) $\frac{2}{5}$

(3) $\frac{3}{5}$

(4) $\frac{4}{5}$.

SECTION B (20 marks)

Questions **16** to **25** carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. All diagrams are not drawn to scale. Answers in fractions or ratio must be expressed in the simplest form.

16. Arrange the numbers below in descending order.

45 858, 84 858, 48 548, 84 548

Ans: _____, _____, _____, _____

17. What is the value of $9 \times 7 + (10 - 6) \times 3$?

Ans: _____

18. Mrs Fong had $\frac{8}{9}$ m of ribbon. She cut the ribbon into 4 equal pieces without remainder. What was the length of each piece of ribbon?

Give your answer in its simplest form.

Ans: _____ m

19. $2\frac{2}{9} = \frac{2}{3} + \frac{10}{9} + \square$

What is the missing fraction in the box?

Ans: _____

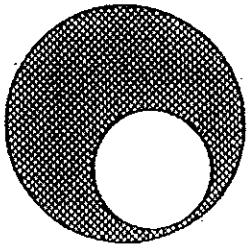
20. Express 0.31 as a percentage.

Ans: _____%

21. A jug contained 3 400 mℓ of milk. Mrs Lim used 850 mℓ of milk for baking. How many millilitres of milk was left in the jug now?

Ans: _____mℓ

22. In the figure below, the diameter of the big and small circles are 8 cm and 4 cm respectively. Find the area of the shaded part in terms of π.



Ans: _____ cm^2

23. Jack is r years old now. He is twice as old as his sister.
How old will his sister be in 6 years' time?
Express your answer in terms of r.

Ans: _____ years old

24. Mike turned on tap A at 3 p.m. and water flowed into an empty tank at a rate of 70 litres per hour.
Tap B was turned on at 4 p.m. and water flowed into the same tank at a rate of 50 litres per hour.
What was the volume of water in the tank at 5 p.m.?

Ans: _____ ℓ

25. A machine took 5 minutes to produce 1 packet of instant noodles.
How many hours did it take to produce 40 packets of instant noodles?

Ans: _____h

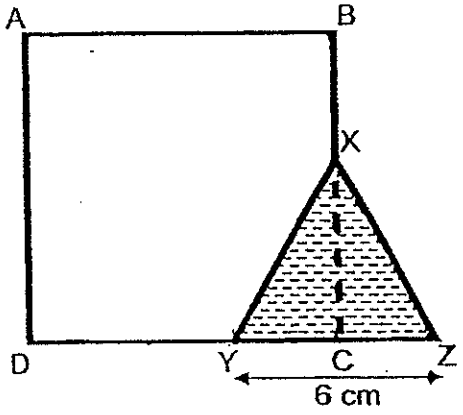
Questions **26** to **30** carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the space provided. For questions which require units, give your answers in the units stated. All diagrams are not drawn to scale. Answers in fractions or ratio must be expressed in the simplest form.

---

26. The figure below is made up of a square ABCD and equilateral triangle XYZ. The area of the shaded equilateral triangle is $20cm^2$.

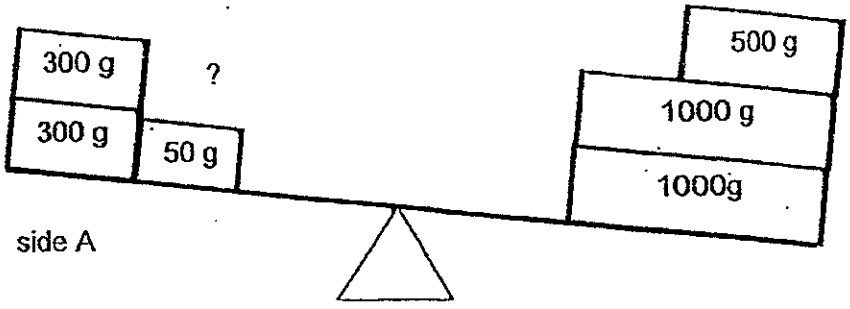
    YC is $\frac{1}{3}$ of DC. YZ is 6 cm.

    Find the unshaded area in the square ABCD.



Ans: _____ cm^2

27. How many 50-g weights must be added on side A for the scale to balance?



Ans: _____

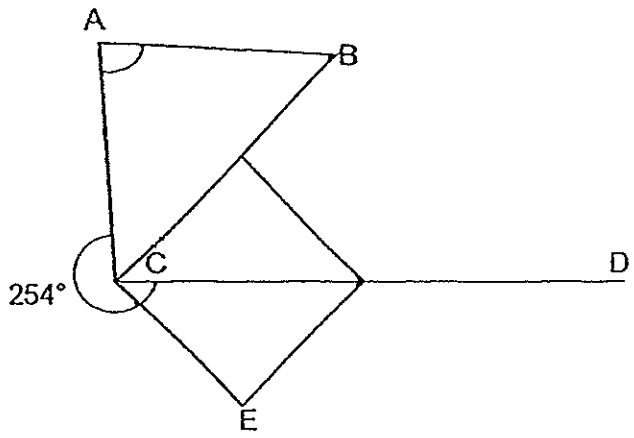
28. $\frac{1}{4}$ of Aisha's money is equal to $\frac{3}{8}$ of Ben's money.
What fraction of Aisha's money must she give to Ben so that both of them have the same amount of money?
Give your answer in its simplest form.

Ans: _____

29. The sum of two numbers is 106.8.
The first number has three decimal places.
The second number is 99 times the first number.
What is the first number?

Ans: _____

30. The figure below is made up of a square and an isosceles triangle. Line CD is a straight line and ∠ACD is 254°. Find ∠BAC.



Ans: _____ °

End of Paper-
☺ Please check your work carefully ☺

Setters: Ms Aubrey Ong
Mr Darren Lau
Ms Lee Suan Khim

RAFFLES GIRLS' PRIMARY SCHOOL
SEMESTRAL ASSESSMENT 1
MATHEMATICS (PAPER 2)
PRIMARY 6

Name: _____ ( )

Form class: P6 _____ Banded Math Class: P6 _____

Date: 8 May 2014 Duration: 1 h 40 min

Your Score (Out of 60 marks)	

INSTRUCTIONS TO CANDIDATES

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer **ALL** questions and show all working clearly.
4. The use of calculator is allowed for this paper.

Questions **1** to **5** carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided.
Figures are not drawn to scale.
For questions which require units, give your answers in the units stated. (10 marks)

---

1. A pair of shoes cost \$280 at "Shoes Variety". Mrs Chan bought it during a sale at a discount of 15%. How much did Mrs Chan pay for the pair of shoes in the end?

Ans: _____ [2]

2. Emelia had w boxes of chocolates.
There were 30 pieces of chocolates in each box.
She ate 7 pieces of chocolates and packed the remaining pieces of chocolates into 8 packets equally.
How many pieces of chocolates were there in each packet?
Express your answer in terms of w.

Ans: _____ [2]

3. John started driving from Singapore to Kuala Lumpur at an average speed of 90 km/h at 9 a.m. and reached Kuala Lumpur at 1 p.m. Find the distance for the whole journey.

Ans: _____km [2]

4. Mr Wong bought 580 pens. The ratio of the number of red pens to the number of black pens was 4 : 7. The ratio of the number of black pens to the number of green pens was 2 : 1. How many black pens did Mr Wong buy?

Ans: _____ [2]

5. 6 workers can paint 48 chairs in 30 minutes.

How many chairs can 1 worker paint in 1 hour?

Ans: _____ [2]

For questions **6** to **18**, show your working clearly in the space provided for each question and write your answers in the spaces provided. Figures are not drawn to scale. The number of marks available is shown in the brackets [ ] at the end of each question or part-question. (50 marks)

---

6. Sally had some money at first and she spent $\frac{1}{7}$ of her money on a wallet.

   She spent the rest of the money on 2 chairs and a fan.
   The 2 chairs cost \$491 more than the wallet.
   The fan cost \$97 more than the wallet.
   How much did the fan cost?

Ans: _____ [3]

7. Michelle bought 18 donuts at \$$y$ each and 16 loaves of bread at \$1.50 each.

   She gave the cashier \$100.

   (a) Express her change in terms of y.

   (b) If $y = 2$, how much change did she receive?

Ans: (a) _____ [2]

(b) _____ [1]

8. Andy started driving from Town A to Town B at an average speed of 80 km/h at 9 a.m..

Benny started driving from Town B to Town A at an average speed of 100 km/h at 9.30 a.m..

After 30 minutes of driving, Benny covered $\frac{1}{5}$ of his journey.

At what time would Andy and Benny meet each other?

Ans: _____ [3]

9. Amy had some money.

If she bought a table and 5 identical chairs, she would spend all her money.

If she wanted to buy a table and an oven that cost $254 more than a chair, she would be short of $38.

How much money would Amy had left if she had bought the table?

Ans: _____ [3]

10. Mr. Lee mixed 5 ℓ of syrup with 23 ℓ of water to make some fruit punch. He then poured all the fruit punch into cups. If each cup contained 200 mℓ of fruit punch and he sold each cup at $0.40, how much did he collect after he had sold all the cups of fruit punch?

Ans: _____ [3]

11. Joanne baked some chocolate and strawberry cookies.
60% of the cookies were chocolate.
After she baked another 40 chocolate and 40 strawberry cookies, 45% of the cookies were strawberry.
Find the total number of cookies she baked at first.

Ans: _____ [3]

12. In a train, the ratio of female passengers to male passengers was 5 : 3. When 16 female passengers alighted the train, the new ratio of female passengers to that of male passengers became 11 : 9.

(a) What was the original number of female passengers in the train?

(b) How many passengers were there in the train in the end?

Ans: (a) _____ [2]

(b) _____ [2]

13. John rode his bicycle at an average speed of 20 km/h from Town A to Town B at 1p.m..
30 minutes later, Ken started riding his bicycle at an average speed of 40 km/h from Town A to Town B.
How much time did Ken need to catch up with John?

Ans: _____ [3]

14. In 9 days, Nelly used a total 84.6 kg of flour for baking. Each day, she used 1.04 kg less flour than the previous day. How many kilograms of flour did Nelly use on the first day?

Ans: _____ [5]

15. At first, Huimin had only ten-dollar notes and Jim had only two-dollar notes. The number of notes Huimin had was $\frac{2}{3}$ the number of notes Jim had.

After Huimin gave Jim \$3 600, the number of notes Huimin had became $\frac{1}{6}$ the number of notes Jim had.

What was the difference in the amount of money Huimin and Jim had at the end?

Ans: _____ [5]

16. Ken had some big and small packets of flour. The amount of flour in a big packet was 4 times as much as the amount of flour in a small packet.

If he repacked 2 big packets of flour into small packets, he would have 16 small packets of flour altogether.

If he continued to repack the remaining big packets of flour into small packets, he would have 36 small packets of flour altogether.

(a) What was the total number of small packets and big packets of flour Ken had?

(b) The difference between the total amount of flour in big packets and small packets of flour is 10 kg. Find out the amount of flour in a big packet.

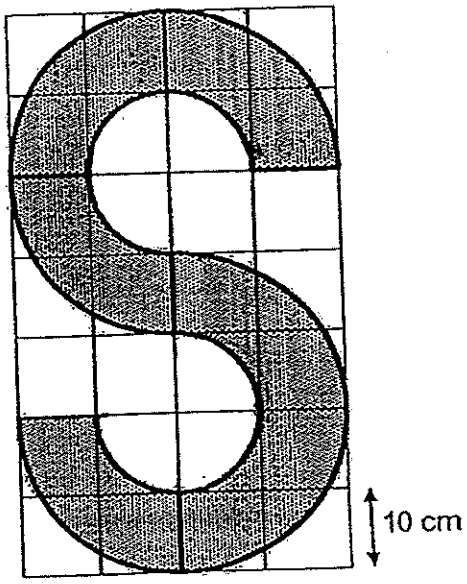
Ans: (a) _____ [3]

(b) _____ [2]

17. In the square grid below, the figure 'S' is made up of semicircles and quadrants. Each square has a side of 10 cm.
Take π as 3.14.

(a) Find the perimeter of the figure 'S'.

(b) Find the total area of the unshaded parts.



Ans: (a) _____ [2]

(b) _____ [3]

18. Mr Ong had a total of 700 chairs and tables in his shop. After he had sold 70% of the chairs and 46% of the tables, he had 282 tables and chairs left.
Find the difference between the number of chairs and tables he had left.

Ans: _____ [5]

-End of Paper-

Please check your work carefully ☺

Setters: Ms Aubrey Ong
Mr Lau Kar Loong
Ms Lee Suan Khim

ANSWER SHEET

EXAM PAPER 2014
SCHOOL : RAFFLES GIRL'S
SUBJECT : PRIMARY 6 MATHEMATICS

TERM : SA1

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
4	3	2	4	1	2	2	4	1	1	1	2	2	1	2

16)84585,84548,48548,45858 17)75 18)2/9M 19)4/9

20)31% 21)2550ml 22)12Πcm2 23)(r/2+6)years old

24)190L 25)3 1/3h 26)71cm2 27)37 28)1/6

29)1.68 30)58°

Paper 2

1)100% →$280
10% →$28
5% →$14
100 – 15 = 85
85% →$238

2)$\frac{30W-7}{8}$

3)S├──────────────────────┤KL
D = 360km (90x4)
S = 90km/h
T = 4h

4)R : B B : G
4 : 7 x2 2 : 1 x7
8 : 14 14: 7

8+14+7 = 29
29u→580
1u →20
14u→280

5)6w 48c 30min x2
6w 96c 60min ÷6
1w 16c 60min
Ans:16

6)2c□□+491
1w□
1F □+97
491+97=588
4u→588
1u→147
147+97=$244

7)18 x y = 18y
16 x 1.50 = 24
100 – 24 = 76
18 x 2 = 36
100 – 36 – 24 = 40
a)$(76 – 18y)
b)$40

8)½ →50
5/5→250
250 – 50 – 80 = 120
50 + 80 + 50 = 180
120/180 = 2/3
2/3h = 40min
9.30————————10.40a.m.

9)4u→216 (254 – 38)
1u→54 (216÷4)
5u→270 (54 x 5)

10)28000÷200= 140
140 x 0.4 = $56

11)45 – 40 = 5
40 – 36 = 4
5u→4
100u→80

12)15u – 16 = 11p
4u→16
1u→4
15u→60
9u→36
60 + 36 = 96
96 – 16 = 80
a)60
b)80

13)20 x ½ = 10 (20km/h x 0.5h = 10km)
40 – 20 = 20
10÷20 = ½ h
= 30 min

14)36 x 1.04 = 37.44
84.6 + 37.44 = 122.04
122.04÷9= 13.56kg

15)

	Huimin		Jim	Total
Before	2_{x7}	:	3_{x7}	5_{x7}
	14	:	21	35
After	1_{x5}	:	6_{x5}	7_{x5}
	5	:	30	35

$3 600 ÷ $10 = 360
14u – 5u = 9u
9u → 360 notes
1u → 40 notes
5u → 5 × 40 × $10 = $2 000 (Huimin's money)
21u → 21 × 40 × $2 = $1 680
$1 680 + $3 600 = $5 280
$5 280 – $2 000 = $3 280

16)a)2 x 4 = 8

Small packets→16 – 8 = 8

Big packets→36 – 16 = 20

(20÷4)+ 2 = 7

Total packets→8 + 7 = 15

b)(7 x 4) – 8 = 20

1unit→10 kg÷20 = 0.5 kg

Big packet→0.5 kg x 4 = 2kg

17)a)3 big semicircles→1.5 x 3.14 x 40 cm = 188.4 cm

3 small semicircles→1.5 x 3.14 x 20 cm = 94.2 cm

188.4 cm + 94.2 cm + 10 cm + 10 cm = 302.6 cm

b)total area of sq→28 x 10 cm x 10 cm = 2800cm2

Big semicircle→0.5 x 3.14 x 20 cm x 20 cm = 628cm2

Small semicircle→0.5 x 3.14 x 10 cm x 10 cm = 157 cm2

628cm2 – 157cm2 = 471cm2

471cm2 x 3 = 1413cm2

2800cm2 – 1413cm2 = 1387cm2

18)80% T = 240

1% T = 3

4% T = 162

282 – 162 = 120 ©

162 – 120 = 42

Rosyth School
First Semestral Assessment 2014
Primary 6 Mathematics

Name: _____ Register No. _____

Class: Pr 6 -_____

Date: 12th May 2014 Parent's Signature: _____

Total Time for Booklets A and B : 50 minutes

PAPER 1
(Booklet A)

Instructions to Pupils:

1. Do not open this booklet until you are told to do so.
2. Follow all instructions carefully.
3. Shade your answers in the Optical Answer Sheet (OAS) provided.
4. You are **not** allowed to use a calculator
5. Answer all questions.

Section	Maximum Mark	Marks Obtained
Paper 1 (Booklet A)	20	

*** This booklet consists of 8 pages (including this cover page)**

This paper is not to be reproduced in part or whole without the permission of the Principal.

Questions **1** to **10** carry 1 mark each. Questions **11** to **15** carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the oval (1, 2, 3 or 4) on the Optical Answer Sheet.

(20 marks)

---

1. A number becomes 4 000 when rounded off to the nearest hundred. Which of the following could the number be?

   (1) 3 919

   (2) 3 988

   (3) 4 099

   (4) 4 181

2. Which of the following fractions is the largest?

   (1) $\frac{1}{2}$

   (2) $\frac{3}{5}$

   (3) $\frac{7}{11}$

   (4) $\frac{5}{12}$

3. 5 km 10 m = _____ km

   (1) 5.001

   (2) 5.01

   (3) 5.1

   (4) 5 010

4. What is the missing number in the box?

$$4 : 18 = \boxed{\ ?\ } : 45$$

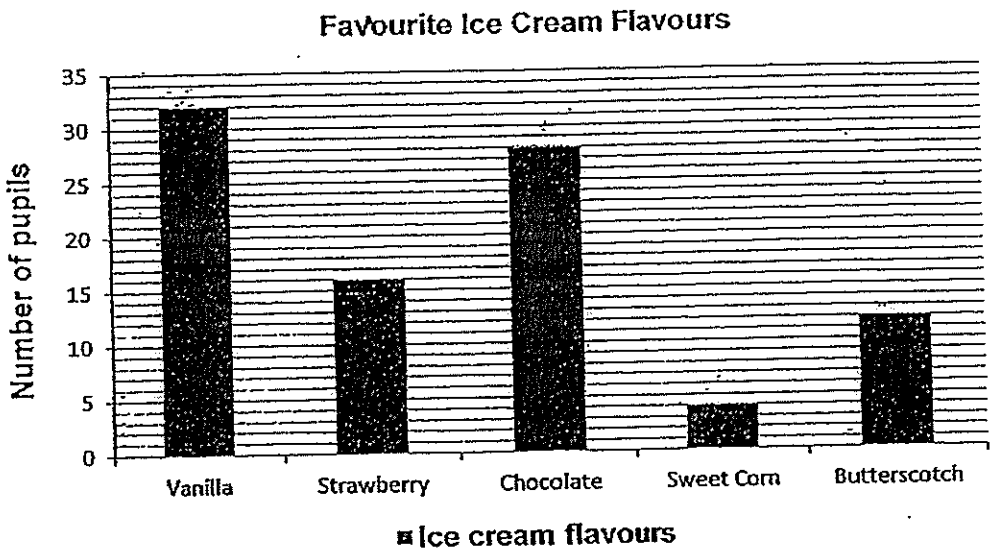
(1) 5

(2) 2

(3) 10

(4) 20

5. The bar graph shows the favourite ice cream flavour of a group of children.



What is the difference between the most favourite and least favourite flavours?

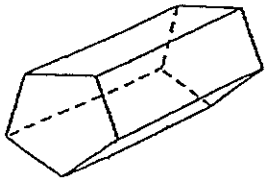
(1) 28

(2) 32

(3) 36

(4) 4

6. How many faces does the following solid have?



(1) 5

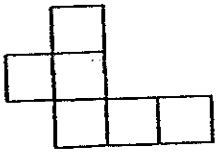
(2) 6

(3) 7

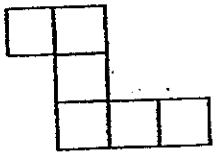
(4) 4

7. Which of the following is a net of a cube?

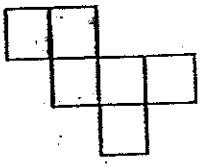
(1)



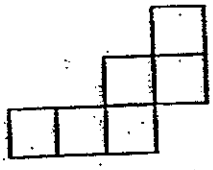
(2)



(3)



(4)



8. Find the value of $40 + (5r - 3) \times 3$, given that $r = 3$.

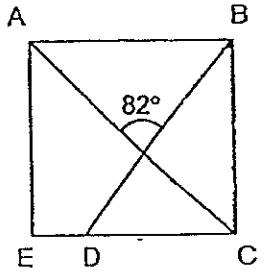
(1) 46

(2) 49

(3) 76

(4) 156

9. ABCE is a square. AC and DB are straight lines. Find $\angle ABD$.



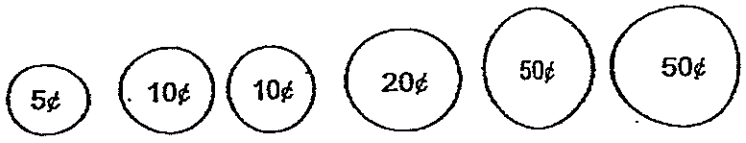
(1) 45°

(2) 49°

(3) 53°

(4) 98°

10. Zack had the following coins in his wallet.



He used three of the coins to pay for a pack of sweets. Which of the following amount could not be the price of the pack of sweets?

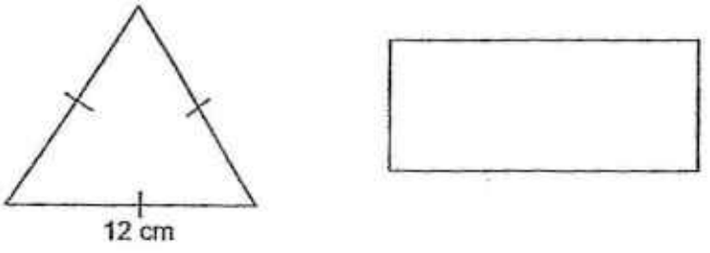
(1) 65¢

(2) 90¢

(3) $1.05

(4) $1.20

11. The equilateral triangle and the rectangle shown below have the same perimeter. The length of the rectangle is twice its breadth.
If the side of the triangle is 12 cm, what is the breadth of the rectangle?



(1) 6 cm

(2) 2 cm

(3) 9 cm

(4) 18 cm

12. Agnes and Mandy collect stickers. $\frac{3}{5}$ of Agnes' stickers is equal to $\frac{2}{5}$ of Mandy's stickers. If Agnes has 30 stickers, how many stickers do they have altogether?

(1) 45

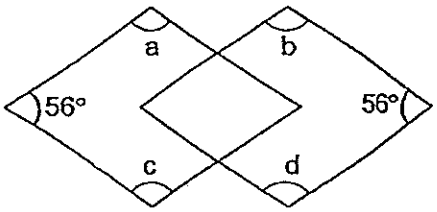
(2) 75

(3) 3

(4) 150

13. The figure below is made up of identical rhombuses.

Find $\angle a + \angle b + \angle c + \angle d$.



(1) 224°

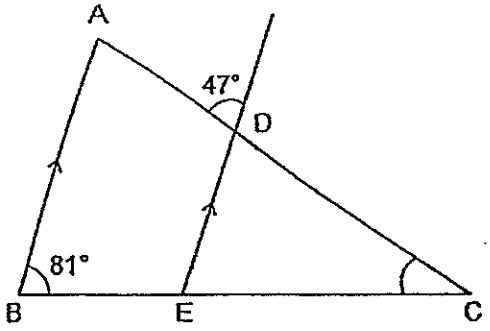
(2) 248°

(3) 272°

(4) 496°

14. In the figure below, ABC is a triangle. DE is a straight line, parallel to AB.

Find $\angle ECD$.



(1) 18°

(2) 34°

(3) 52°

(4) 128°

15. The ratio of number of magazines to number of books on a shelf is 5 : 7.
10 more magazines are added while 4 books are removed from the shelf.
The number of magazines and books are the same now.
How many books are there on the shelf at first?

(1) 35

(2) 45

(3) 49

(4) 98

Go on to Booklet B

Rosyth School
First Semestral Assessment 2014
Primary 6 Mathematics

Name: _____ Register No. _____

Class: Pr 6 -_____

Date: 12th May 2014 Parent's Signature: _____

Total Time for Booklets A and B : 50 minutes

PAPER 1
(Booklet B)

Instructions to Pupils:

1. Do not open this booklet until you are told to do so.
2. Follow all instructions carefully.
3. You are **not** allowed to use a calculator
4. Answer all questions.

Section	Maximum Mark	Marks Obtained
Paper 1 (Booklet B)	20	

*** This booklet consists of 8 pages (including this cover page)**

This paper is not to be reproduced in part or whole without the permission of the Principal.

Questions **16** to **25** carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(10 marks)

16. How many sixths are there in $4\frac{2}{3}$?

Ans: _____

17. Find the difference between 75 tenths and 218 hundredths.

Ans: _____

18. The table below shows the sale of coupons for a school carnival.

Category	Coupon prices (in dollars)	Number of coupons sold
A	$2	2 015
B	$5	923
C	$10	376

Which category of coupons fetched the greatest amount of money?

Ans: Category_____

19. Express $\frac{5}{9}$ of 2.7 ℓ in millilitres.

Ans: _____ ml

20. Mrs Tan started baking at 10.45 a.m. It took her $2\frac{1}{2}$ h.
What time did she finish baking?

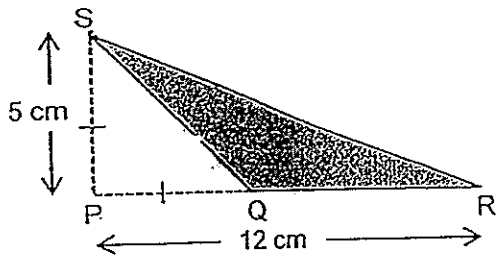
Ans: _____ p.m.

21. Farhan bought a pair of roller blades at 30 % discount.
How much did he pay for it?

Ans: $ _____

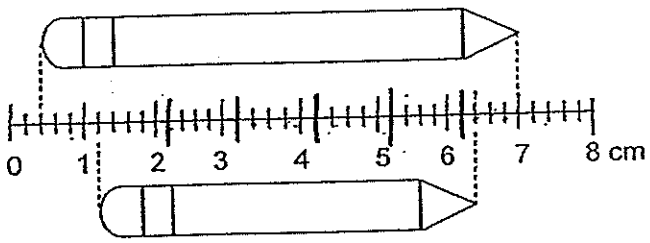
22. In the figure below, PQR is a straight line.

What is the area of the triangle SQR?



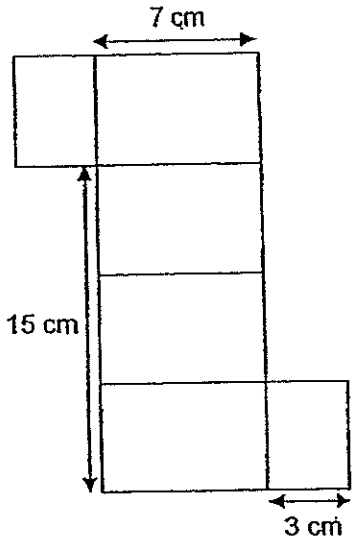
Ans: _____ cm^2

23. Two pencils are placed next to a scale.
What is the total length of the two pencils?



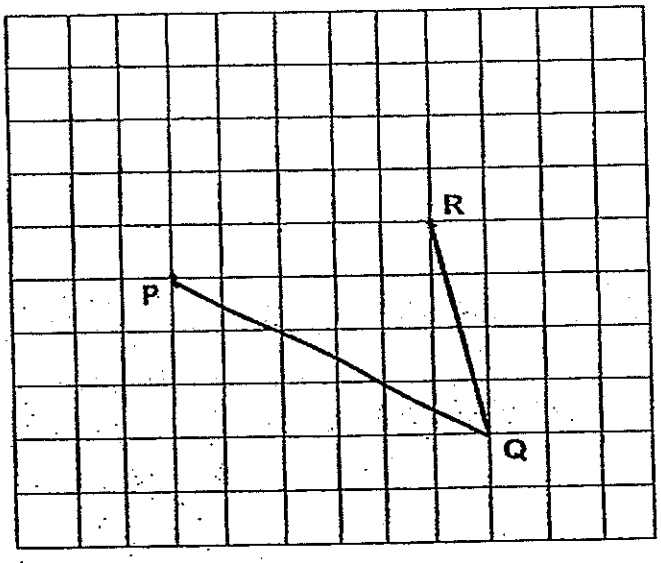
Ans: _____ cm

24. The net shown below can be folded to form a cuboid.
What is the volume of cuboid?



Ans: _____ cm^3

25. PQ and QR are two sides of a parallelogram. Complete the parallelogram by drawing the other two sides in the square grid below.



Questions 26 to 30 carry 2 marks each. Show your workings clearly in the space provided for each question and write your answers in the spaces provided.
For questions which require units, give your answers in the units stated.

(10 marks)

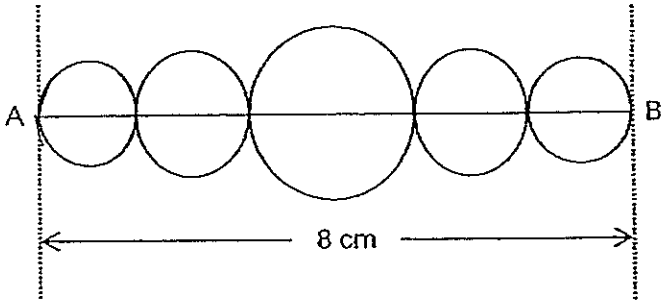
26. The average of 6 consecutive odd numbers is 54.
What is the largest of the 6 numbers?

Ans: _____

27. Tina had 90 sweets. She gave $3p$ sweets to her sister. Then she gave the rest to her four friends and they shared equally among themselves. How many sweets did each friend get? Leave your answer in terms of p.

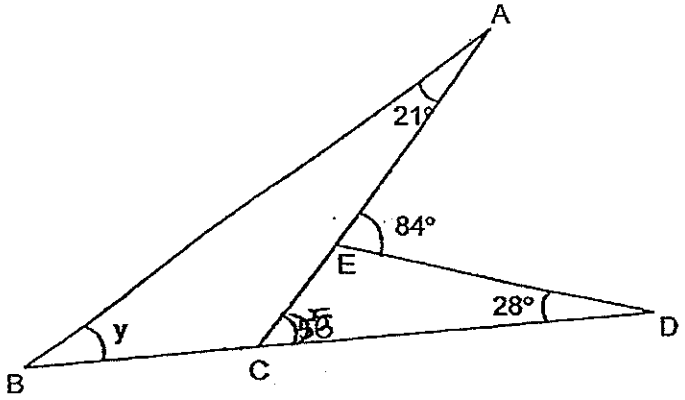
Ans: _____

28. The figure is made up of 5 circles arranged in a straight line.
Line AB passes through the centre of the 5 circles.
What is the total perimeter of the figure?
(Take $\pi = 3.14$)



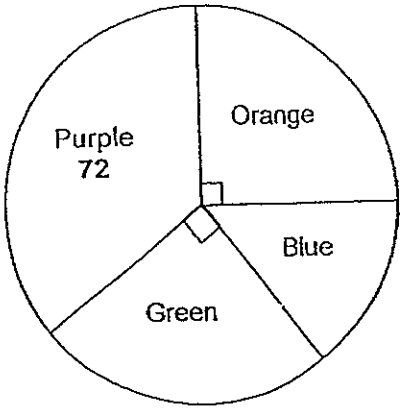
Ans: _____ cm

29. The figure below is not drawn to scale. AEC and BCD are straight lines.
Find the value of $\angle y$.

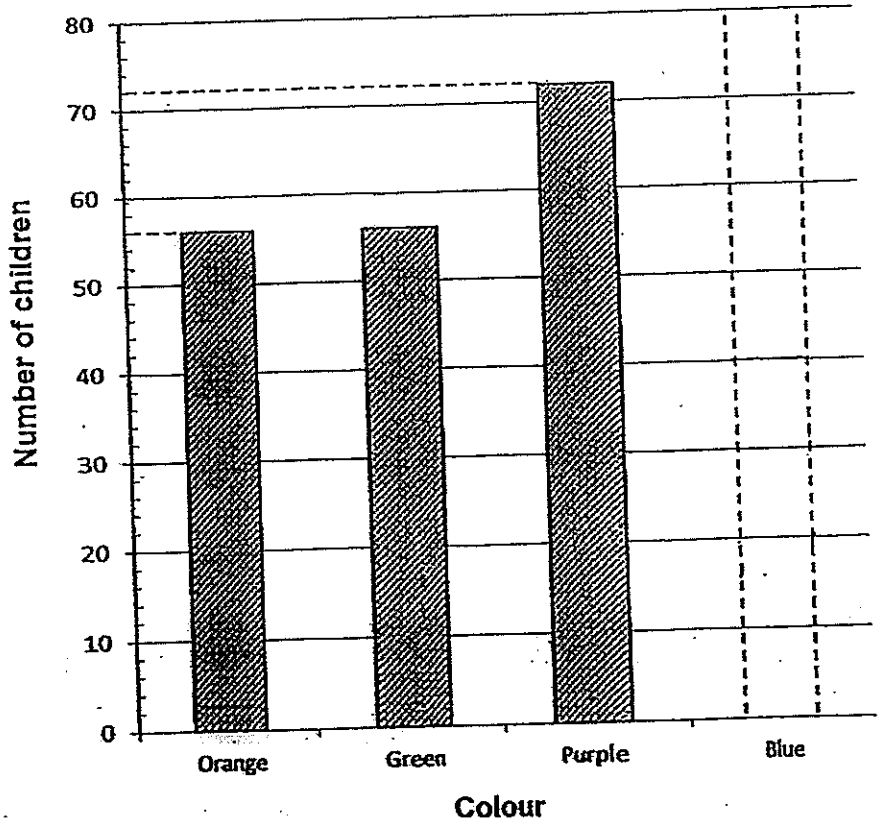


Ans: _____ °

30. Sarsa pens were available in 4 colours: blue, orange, green and purple. During a carnival, each child got to choose one pen. The pie chart shows the children's choice of pen colours.



The number of children who made their choice for each colour is also shown in the bar graph below. The bar that shows the number of children who chose blue was not drawn. Complete the bar graph by drawing the bar for this colour in the graph below.



End of paper. Have you checked your work?

ANSWER SHEET

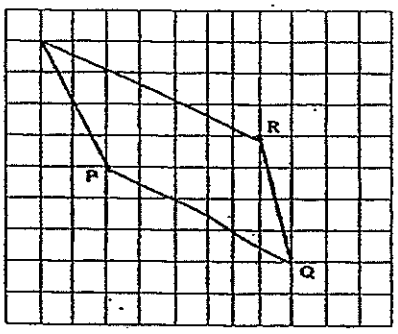
EXAM PAPER 2014
SCHOOL : ROSYTH
PRIMARY : P6
SUBJECT : MATHEMATICS
TERM : SA1

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
2	3	2	3	1	3	3	3	3	2	1	2	4	3	3

16)28 **17)5.32** **18)B** **19)1500 ml** **20)1.15 p.m.**

21)$62.30 **22)17.5 cm^2** **23)11.8 cm** **24)105 cm^3**

25) **26)59** **27)** $\frac{90 - 3p}{4}$ **28)25.12 cm**



29)35° **30)blue = 40**

Rosyth School
Preliminary Examination 2014
Primary 6 Mathematics

Name: _____ Register No. _____

Class: Pr 6 - _____

Date: 19 August 2014 Parent's Signature: _____

Total Time for Booklets A and B : 50 minutes

PAPER 1
(Booklet A)

Instructions to Pupils:

1. Do not open this booklet until you are told to do so.
2. Follow all instructions carefully.
3. Shade your answers in the Optical Answer Sheet (OAS) provided.
4. You are **not** allowed to use a calculator.
5. Answer all questions.

Section	Maximum Mark	Marks Obtained
Paper 1 (Booklet A)	20	

*** This booklet consists of 10 pages (including this cover page)**

Questions **1** to **10** carry 1 mark each. Questions **11** to **15** carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the oval (1, 2, 3 or 4) on the Optical Answer Sheet.

(20 marks)

All diagrams in this paper are not drawn to scale.

1. How many thousands are there in a million?

   (1) 100
   (2) 1 000
   (3) 10 000
   (4) 100 000

2. Which of the following shows the numeral 5 in the hundredths place?

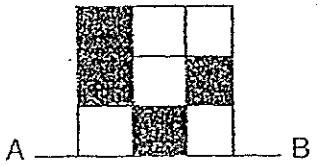
   (1) 0.01543
   (2) 0.1543
   (3) 1.543
   (4) 1 543

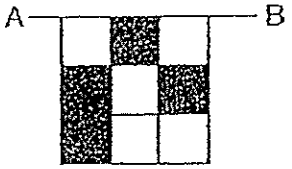
3. $\boxed{\ ?\ } \div 10 = 0.123 \times 100$

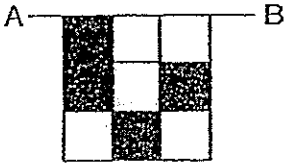
   What is the missing number in the box?

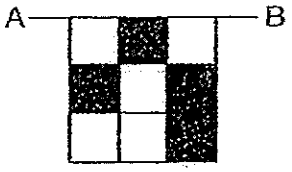
   (1) 1.23
   (2) 12.3
   (3) 123
   (4) 1 230

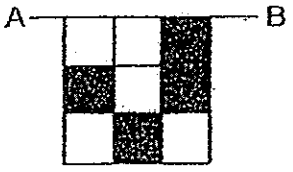
4. The top half of a symmetric figure is shown below. AB is the line of symmetry. Which one of the following completes the symmetric figure?



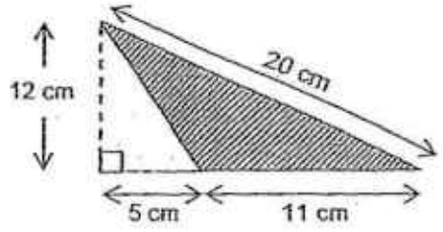
(1) 

(2) 

(3) 

(4) 

5. Find the area of the shaded triangle shown below.



(1) 30 cm^2

(2) 66 cm^2

(3) 110 cm^2

(4) 120 cm^2

6. Matthias drove from his house to his work place at a speed of 84 km/h. He took 15 minutes to get there. How far was his work place from his house?

(1) 12.6 km

(2) 21 km

(3) 210 km

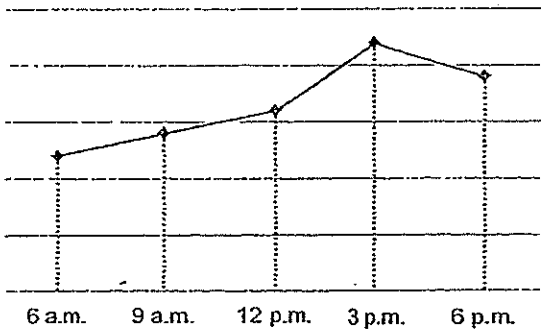
(4) 1 260 km

7. The table below shows the temperature at various times on a certain day.

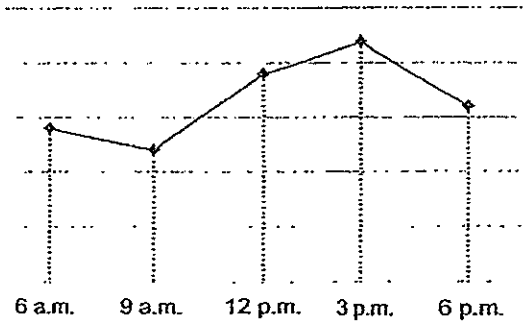
Time	6 a.m.	9 a.m.	12 p.m.	3 p.m.	6 p.m.
Temperature	12	19	16	22	14

A graph with a missing temperature scale is drawn. Which of the following could be the graph that shows the information given in the table?

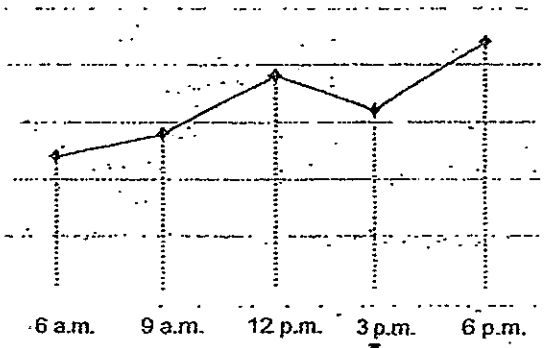
(1)



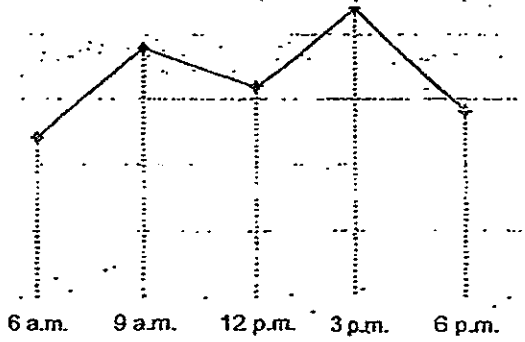
(2)



(3)



(4)



8. Christel mixed 700 g of soya beans, 270g of red beans and 0.03 kg of green beans together. How much mixed beans were there altogether?

(1) 970.03 g

(2) 973 g

(3) 1 000 g

(4) 1 270 g

9. The calendar below shows the month of November in 2014.
Leena crossed out 4 November. She will be travelling to Iceland 57 days later from the date she crossed out. Which day will she be travelling?
(There are 30 Days in November)

November						
Mon	Tue	Wed	Thur	Fri	Sat	Sun
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

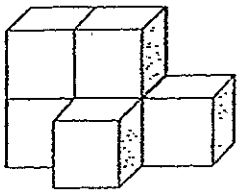
(1) Monday

(2) Wednesday

(3) Thursday

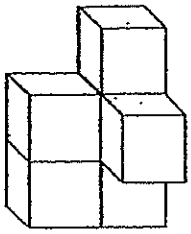
(4) Sunday

10. The solid below is made up of 6 identical cubes which has been glued together.

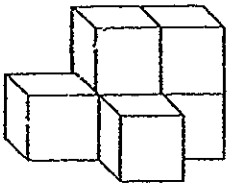


Which of these is the solid above after it is rotated?

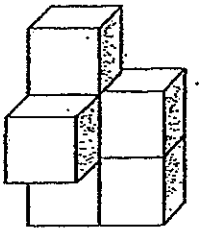
(1)



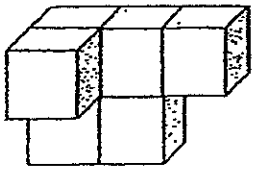
(2)



(3)



(4)



11. Rebecca bought a cake and ate $\frac{1}{5}$ of the cake. She then gave away $\frac{1}{3}$ of the remainder to her sister. What fraction of the cake was left?

(1) $\frac{1}{15}$

(2) $\frac{2}{15}$

(3) $\frac{4}{15}$

(4) $\frac{8}{15}$

12. 40% of the pupils who attended a concert are boys. Halfway through the concert, 10% of the girls and 25% of the boys left the concert. What percentage of the pupils remained at the concert?

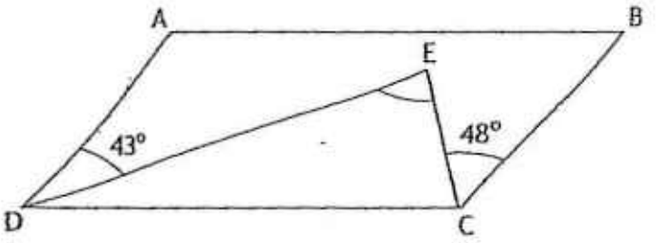
(1) 16%

(2) 35%

(3) 65%

(4) 84%

13. The figure shows a parallelogram ABCD and a triangle CDE. Find $\angle CED$.



(1) 43°

(2) 89°

(3) 91°

(4) 101°

14. In a biathlon race, athletes need to swim 1 km and run 15 km.
Catherine and Betty took part in the biathalon.

For the swimming event, Catherine completed the swim in 28 mins and Betty took 9 mins longer than Catherine.
For the running event, Betty ran at 7.5 km/h and Catherine was 8 mins faster than Betty.

Which of the table below best describes Catherine and Betty's timing for the Biathalon?

(1)

	Swim	Run
Catherine	28 mins	128 mins
Betty	37 mins	120 mins

(2)

	Swim	Run
Catherine	28 mins	112 mins
Betty	37 mins	120 mins

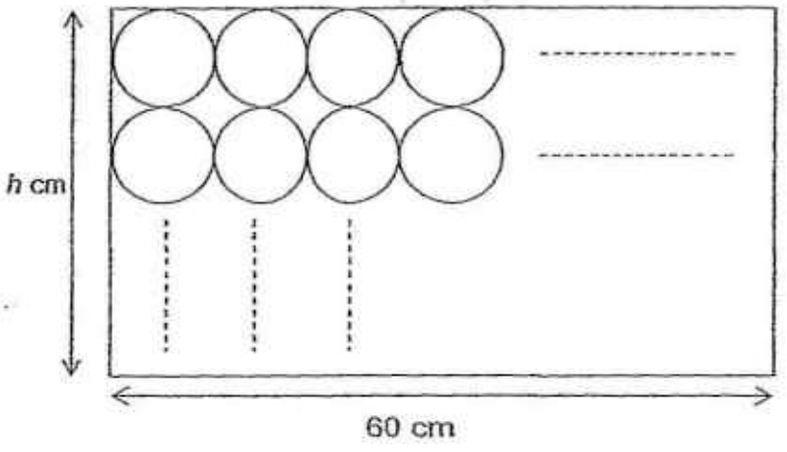
(3)

	Swim	Run
Catherine	28 mins	128 mins
Betty	19 mins	120 mins

(4)

	Swim	Run
Catherine	28 mins	112 mins
Betty	19 mins	120 mins

15. Jeremy had cut some identical circles of radius 2 cm from a rectangular cardboard measuring 60 cm by h cm as shown below. What was the maximum number of circles he cut?
Give your answer in terms of h in the simplest form.



(1) 3.75h

(2) 7.5h

(3) 15h

(4) 30h

Go on to Booklet B

Rosyth School
Preliminary Examination 2014
Primary 6 Mathematics

Name: _____ Register No. _____

Class: Pr 6 - _____

Date: 19 August 2014 Parent's Signature: _____

Total Time for Booklets A and B : 50 minutes

PAPER 1
(Booklet B)

Instructions to Pupils:

1. Do not open this booklet until you are told to do so.
2. Follow all instructions carefully.
3. You are **not** allowed to use a calculator.
4. Answer all questions.

Section	Maximum Mark	Marks Obtained
Paper 1 (Booklet B)	20	

*** This booklet consists of 7 pages (including this cover page)**

Questions **16** to **25** carry 1 mark each. Write your answers in the spaces provided.
For questions which require units, give your answers in the units stated.
All diagrams in this paper are not drawn to scale.

(10 marks)

16. $7 - 0.011 =$ _____

Ans: _____

17. Find $1 \div \frac{3}{5}$. Give your answer as a fraction in its simplest form.

Ans: _____

18. Find the value of 50×0.18.

Ans: _____

19. 12 : 8 is the same as 15 : $\boxed{}$

What is the missing number in the box?

Ans: _____

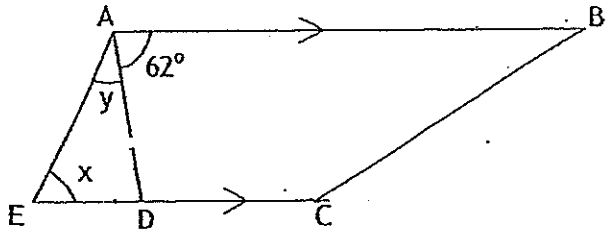
20. How many 5-cent coins are there in $11.05?

Ans: _____

21. Shi Yao took a flight from Singapore and arrived at Beijing at 1.15 p.m. The duration of the flight is 6 hours and 35 minutes. At what time did she depart Singapore?

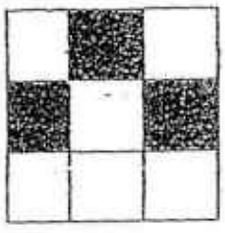
Ans: _____ a.m ~~p.m.~~

22. The figure shown below is made up of a triangle AED and a trapezium ABCD. CDE is a straight line. Find the sum of ∠x and ∠y.



Ans: _____ °

23. The big square below is made up of 9 identical small squares. The total area of the unshaded parts is 24 cm^2. Find the length of the big square.



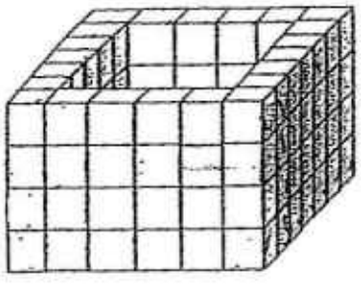
Ans: _____ cm

24. Arrange the following fractions from the smallest to the largest.

$\frac{4}{5}$, $\frac{5}{6}$, $\frac{9}{11}$, $\frac{11}{13}$

Ans: _____

25. The figure above shows a cuboid made up of identical cubes. There is a hole all the way through the cuboid. How many cubes would be needed to fill the hole in the cuboid completely?

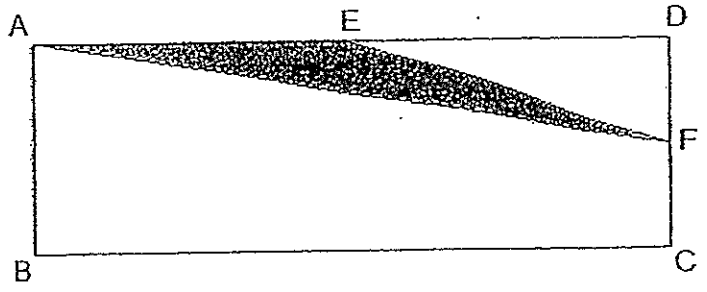


Ans: _____

Questions 26 to 30 carry 2 marks each. Show your workings clearly in the space provided for each question and write your answers in the spaces provided.
For questions which require units, give your answers in the units stated.

(10 marks)

26. ABCD is a rectangle. E is the midpoint of AD and F is the midpoint of CD. The ratio of the length of the rectangle to the breadth of the rectangle is 3 : 2. What fraction of the rectangle is shaded?

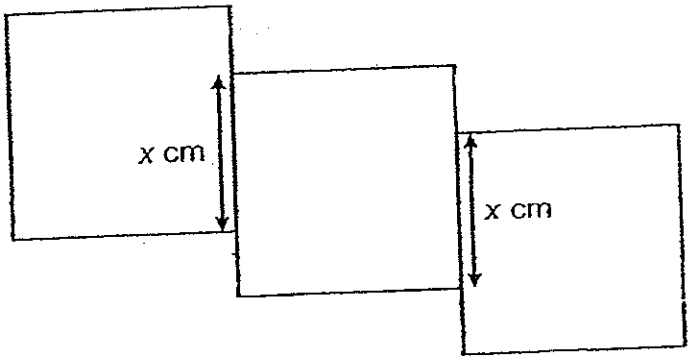


Ans: _____

27. A cubical tank of length 20 cm is completely filled with water. All the water was transferred from the cubical tank into a rectangular container with a square base of 250 cm^2. What was the water level in the rectangular container?

Ans: _____ cm

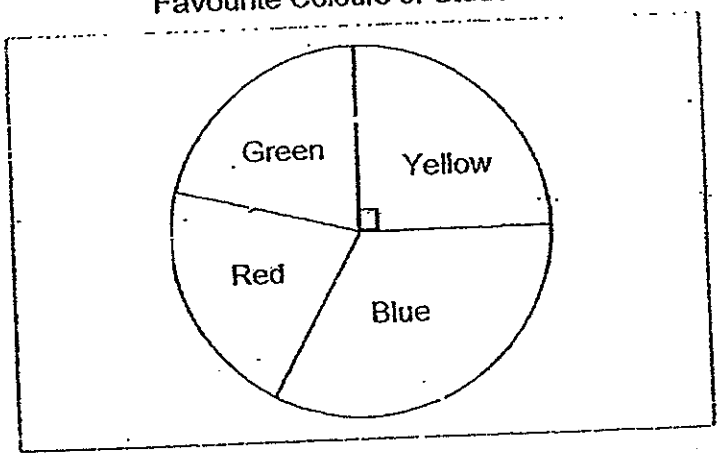
28. The diagram below is made up of three identical squares, each with side measuring 5 cm. Find the perimeter of the whole figure.
Give your answer in terms of x in the simplest form.



Ans: _____ cm

29. The pie chart shows the favourite colours of a group of students
$\frac{1}{3}$ of the pupils like blue and an equal number of pupils like green and red.
The rest of the pupils like yellow. 25 of the pupils like green, how many pupils were there?

Favourite Colours of Students

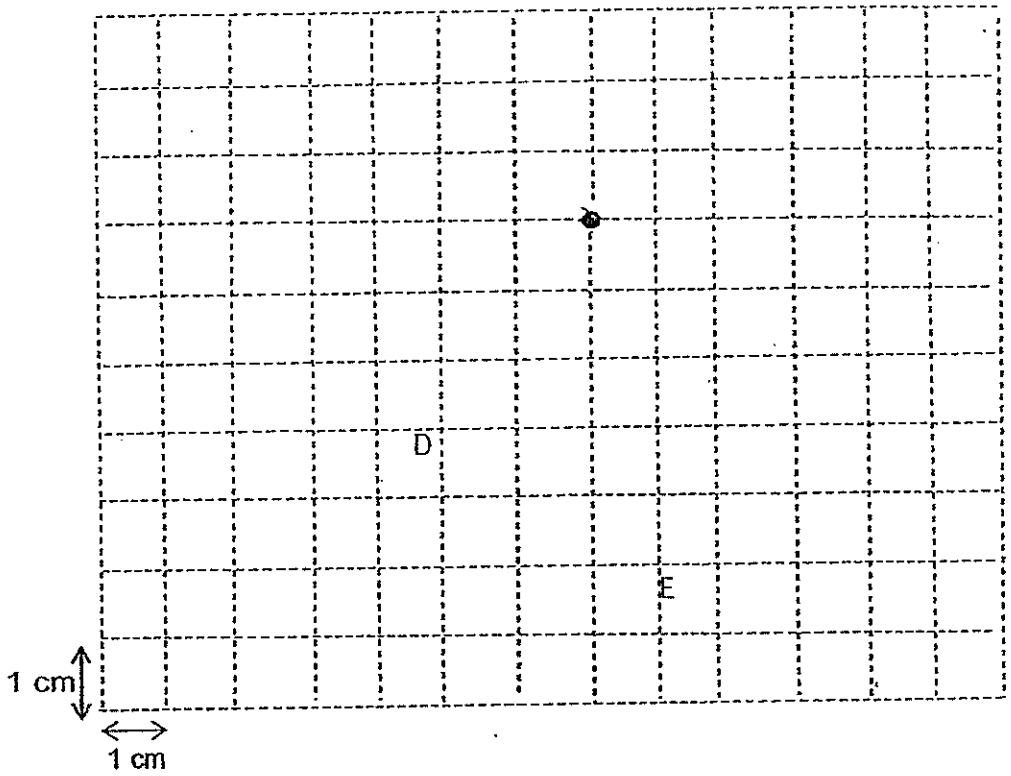


Ans: _____

30. The square grid below is made up of 1 cm squares. Construct the trapezium DEFG such that:

(i) DE is parallel to FG,
(ii) FE is perpendicular to DE and
(iii) FG is twice the length of DE and passes through point X.

Line DE is drawn for you. Label all the points.



End of paper. Have you checked your work?

2014 PRIMARY 6 MID-YEAR MATHEMATICS EXAMINATION

Name : _____ ( ) Date: 16 May 2014

Class : Primary 6 ( ) Time: 8.00 a.m. – 8.50 a.m.

Parent's Signature : _____

Paper 1 comprises 2 booklets, A and B.

MATHEMATICS

PAPER 1

(BOOKLET A)

20

Questions **1** to **10** carry 1 mark each. Questions **11** to **15** carry 2 marks each.
For each question, four options are given. One of them is the correct answer.
Make your choice (1, 2, 3 or 4). Shade the correct oval on the Optical Answer Sheet.
(20 marks)

---

1) 7 ones, 4 tenths and 1 thousandths is _____.

(1) 0.741
(2) 7.041
(3) 7.401
(4) 7.410

2) Round off 567 895 to the nearest ten.

(1) 567 880
(2) 567 890
(3) 567 900
(4) 567 990

3) 9090 g is the same as _____.

(1) 9 kg 9 g
(2) 9 kg 90 g
(3) 90 kg 9 g
(4) 90 kg 90 g

4) Arrange these fractions in order starting with the greatest.

$\frac{4}{7}$, $\frac{4}{5}$, $\frac{4}{11}$.

(1) $\frac{4}{5}$, $\frac{4}{7}$, $\frac{4}{11}$

(2) $\frac{4}{11}$, $\frac{4}{5}$, $\frac{4}{7}$

(3) $\frac{4}{11}$, $\frac{4}{7}$, $\frac{4}{5}$

(4) $\frac{4}{5}$, $\frac{4}{11}$, $\frac{4}{7}$

5) Which of the following is **not** equivalent to 18 : 12?

(1) 45 : 30
(2) 36 : 26
(3) 24 : 16
(4) 15 : 10

6) What is the missing number in the box?

$$\frac{19}{11} + \frac{4}{11} = 2 + \frac{\square}{11}$$

(1) 1
(2) 2
(3) 11
(4) 22

7) Mr Wee is $12n$ years old. How old was he five years ago?

(1) 7 years old
(2) $7n$ years old
(3) $(5 - 12n)$ years old
(4) $(12n - 5)$ years old

8) The table shows the time taken by 4 runners in a race.
Who came in first?

	Name	Timing (s)
(1)	Alex	15.14
(2)	Bala	15.4
(3)	Chandra	15.1
(4)	David	15.04

9) Express $1\frac{1}{20}$ hours in minutes.

(1) 21 min
(2) 63 min
(3) 103 min
(4) 120 min

10) Express 1.2% as a fraction in its simplest form.

(1) $1\frac{1}{5}$

(2) $\frac{1}{2}$

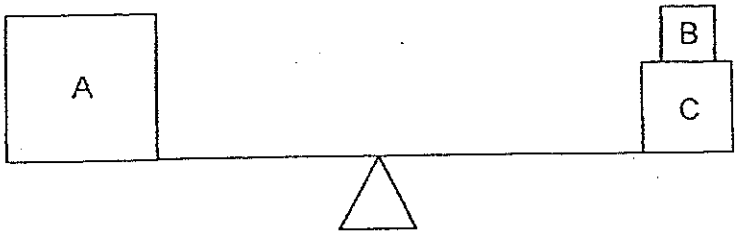
(3) $\frac{3}{25}$

(4) $\frac{3}{250}$

11) In a stationery shop, plastic folders are sold in boxes of 5 packs. Each box is sold at $2. Mrs Wee has $13. What is the maximum number of packs of plastic folders she can buy?

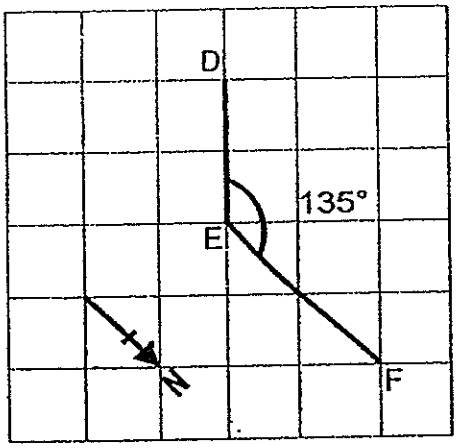
(1) 6
(2) 7
(3) 30
(4) 35

12) The diagram below shows three cubes on a balance scale.
The mass of Cube A is 3 kg. What is the average weight of the three cubes?



(1) 9 kg
(2) 2 kg
(3) 3 kg
(4) 6 kg

13)

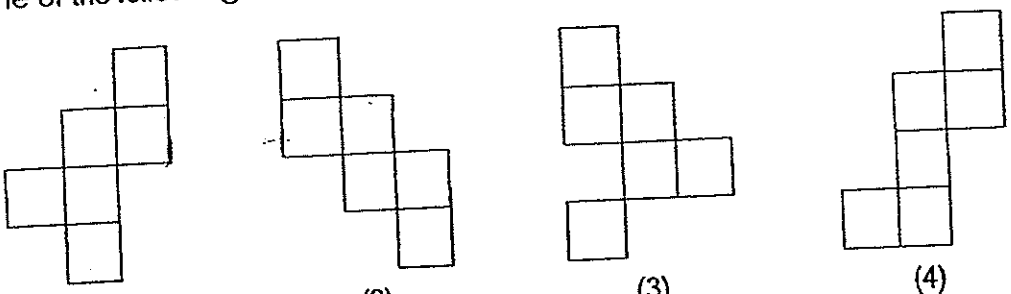


In the diagram above, D, E and F are three points on the ground.
In what direction is D from E?

(1) North
(2) South
(3) North-East
(4) South-West

14) The figure below shows a cube.

Which one of the following is **not** a net of the cube?



(1) (2) (3) (4)

15) John placed ten plastic bowling pins in a row at equal distances.
The distance between the first and fifth pin was 60 cm.
Calculate the distance between the first and tenth pin.

(1) 108 cm
(2) 120 cm
(3) 135 cm
(4) 150 cm

2014 PRIMARY 6 MID-YEAR MATHEMATICS EXAMINATION

Name : _____ ( ) Date: 16 May 2014

Class : Primary 6 ( ) Time: 8.00 a.m. – 8.50 a.m.

Parent's Signature : _____

Paper 1 comprises 2 booklets, A and B.

MATHEMATICS

PAPER 1

(BOOKLET B)

20

INSTRUCTIONS TO CANDIDATE

1. Write your name, class and register number.
2. Do not turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Write your answers in this booklet.
6. You are NOT allowed to use a calculator.

Questions **16** to **25** carry **1** mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

---

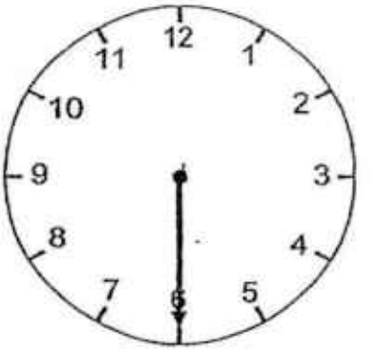
16) Write down the greatest common factor of 24 and 72.

Ans: _____

17) Use all the digits 2, 4, 6 and 8 to form the greatest four-digit number that is divisible by 4.

Ans: _____

18) The time is half past 12. Draw the hour hand on the clock face to show the time.



19) Divide 4003.5 by 5. The answer is _____.

Ans: _____

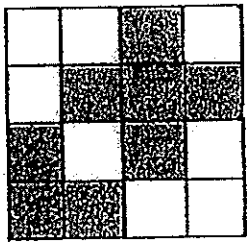
20) Pole A is 1.48 m long. Pole B is 9 cm shorter than Pole A.
What is the length of Pole B?

Ans: _____ m

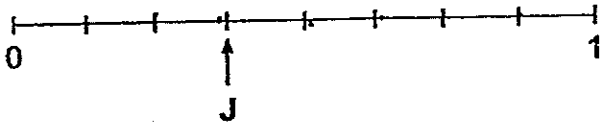
21) Vegetables are sold at 25¢ per 100 g in a grocery shop.
What is the price of 1 kg of vegetables?

Ans: $ _____

22) Using a dotted line, draw a line of symmetry on the figure below.

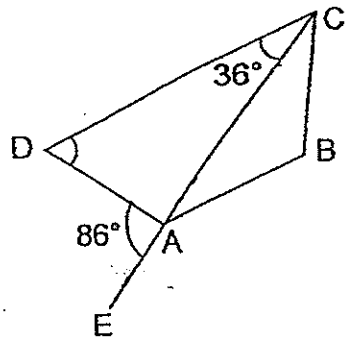


23) What is the percentage represented by the letter J?



Ans: _____ %

24) In the diagram below, not drawn to scale, ABCD is a trapezium. AB is parallel to DC and CE is a straight line. Find ∠CDA.



Ans: _____ °

25) A bottle is $\frac{1}{6}$ full of water. The water is then poured into an empty cup which has a volume $\frac{1}{2}$ that of the bottle. What fraction of the cup is filled with water?

Ans: _____

Questions **26** to **30** carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided.
For questions which require units, give your answers in the units stated. (10 marks)

---

26) There are cows, goats and sheep in a farm. The ratio of the number of cows to the number of goats is 2 : 3. The ratio of the number of sheep to the number of goats is 16 : 15. What is the ratio of the number of sheep to the number of goats to the number of cows at the farm?

Ans: _____

27) A box contains the same number of five-cent coins and ten-cent coins. The total value of the coins is $30. How many ten-cent coins are there in the box?

Ans: _____

28) Shah spent 40% of his money on a book and 5% of the remainder on a pen. What percentage of his money has he left?

Ans: _____ %

29) Mr Tham is five times as old his grandson now. His grandson will be 18 years old in 3 years' time. What was their total age 5 years ago?

Ans: _____ years

30) The ratio of the area of a square to the area of a rectangle is 1 : 3. The area of the rectangle is 12 cm^2. Find the perimeter of the square.

Ans: _____ cm

- END OF PAPER 1 -

2014 PRIMARY 6 MID-YEAR MATHEMATICS EXAMINATION

Name : _____ ( ) Date: 16 May 2014

Class : Primary 6 ( ) Time: 10.00 a.m. – 11.40 a.m.

Parent's Signature : _____

MATHEMATICS

PAPER 2

/ 60

INSTRUCTIONS TO CANDIDATE

1. Write your name, class and register number.
2. Do not turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Show your working clearly as marks are awarded for correct working.
6. You are allowed to use a calculator.

Questions **1** to **5** carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

---

1) Mr Ang worked from 12.45 p.m. to 8.45 p.m. What fraction of the 24-hour day did he spend working? Give your answer in the simplest form.

Ans: _____

---

2) The total mass of Alan, Ben and Carl is m kg. Ben's mass is 32 kg. Alan and Carl have the same mass. Express Alan's mass in terms of m.

Ans: _____ kg

---

3) Mr Ng held a gathering at his house. 60% of the guests were men and the rest were women. 10% of the men and 20% of the women were his neighbours. What percentage of his guests were **not** his neighbours?

Ans: _____ %

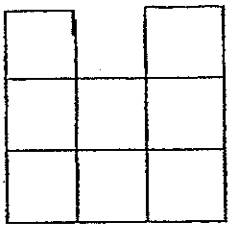
---

4) In a game, a participant must score an average of 95 or more points for 3 rounds in order to advance to the final round. Peter obtains 90 and 99 for the first 2 rounds. What is the lowest score he needs to obtain so that he can advance to the final round?

Ans: _____

---

5) The figure below, not drawn to scale, is made up of squares.
If the area of the figure is 648 cm^2, what is the perimeter of the figure?

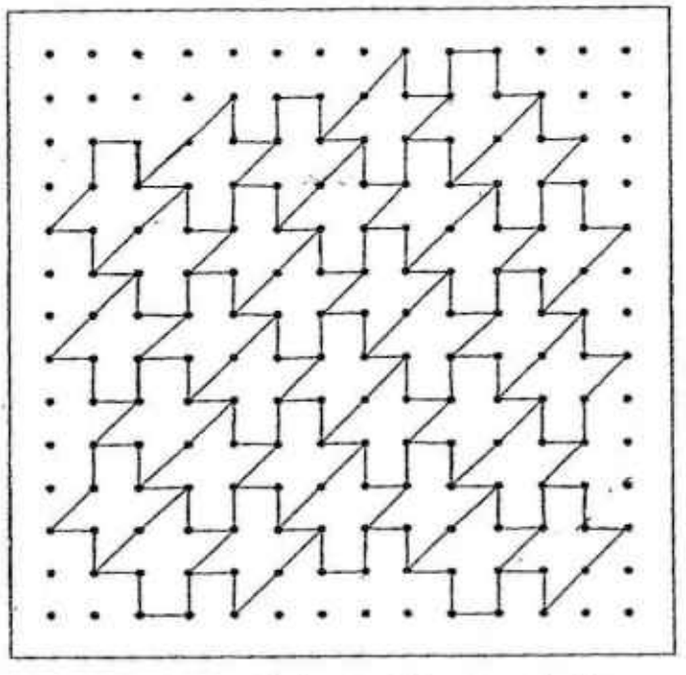


Ans: _____ cm

For questions **6** to **18**, show your working clearly in the space provided for each question and write your answers in the spaces provided.
The number of marks available is shown in brackets [ ] at the end of each question or part-question. (50 marks)

---

6) The pattern in the box below shows part of a tessellation.



(a) Shade a unit shape of the tessellation. [1m]

(b) Extend the tessellation by drawing two more unit shapes in the space provided in the box. [2m]

---

7) There were some pies and cakes for sale in a pastry shop. $\frac{1}{4}$ of the pastries were pies. The pastry chef then baked an equal number of pies.

(a) Will the percentage of cakes increase, decrease or remain the same?

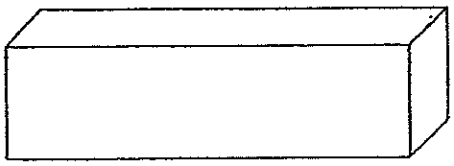
(b) What percentage of the pastries will be cakes?

Ans: (a) _____ [1m]

(b) _____ [2m]

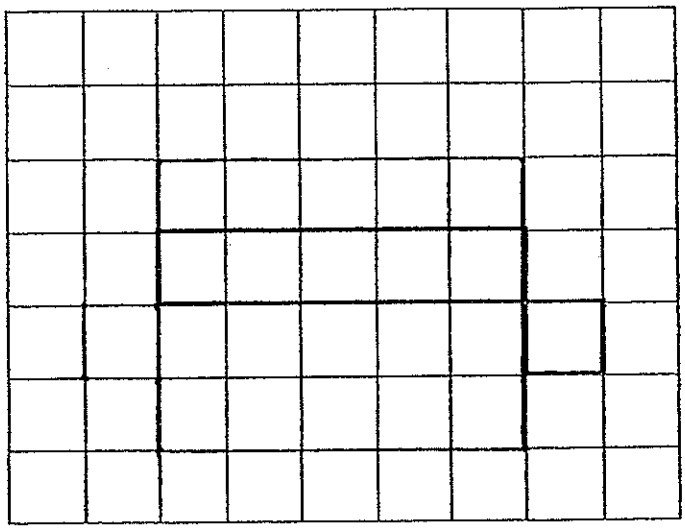
---

8)



(a) Name the solid.

(b) Complete the net of the above solid. [2m]



Ans: (a) _____ [1m]

---

9) Mr and Mrs Cheng went on an excursion with their 6 children. An average amount of $84 was spent by each adult while an average amount of $62 was spent on each child. What was the average amount of money spent on each person?

Ans: _____ [3m]

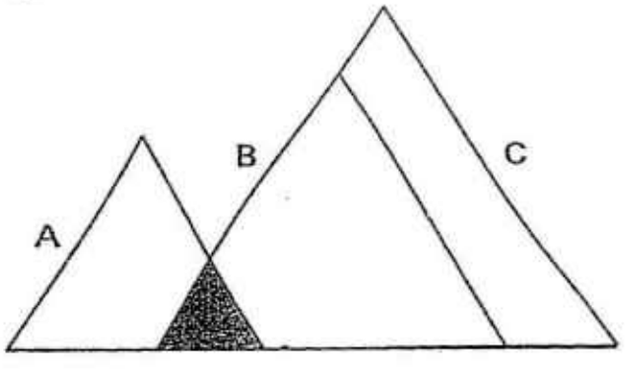
---

10) Mrs Dewi has some sweets for pupils in the Maths Club. If she gives each pupil 2 sweets, she ~~will~~ have 3 sweets left. If she gives each pupil 3 sweets, she will need 42 more sweets. How many sweets does she have?

Ans:_____ [3m]

---

11) The figure below, not drawn to scale, shows 3 triangles overlapping one another. The ratio of the area of Triangle A to the area of Triangle B to the area of Triangle C is 1 : 2 : 3. $\frac{1}{5}$ of Triangle A is shaded. What fraction of the figure is unshaded?



Ans: _____ [3m]

---

12) At first, Frank had $\frac{7}{12}$ of the number of cards Gary had.

Then, Gary gave Frank 70 cards and both had the same number of cards.

(a) How many fewer cards did Frank have than Gary at first?

(b) How many cards were there altogether?

Ans: (a) _____ [2m]

(b) _____ [2m]

13) The table below shows Mrs Lau's expenditure on groceries and transportation from January to May in a year.

Month	Groceries ($)	Transportation ($)
January	900	65
February	750	85
March	910	90
April	800	100
May	600	60

(a) In which month was the expenditure on groceries 150% of that in May?

(b) What was the percentage increase/decrease in expenditure from March to April?

Ans: (a)_____ [2m]

(b)_____ [2m]

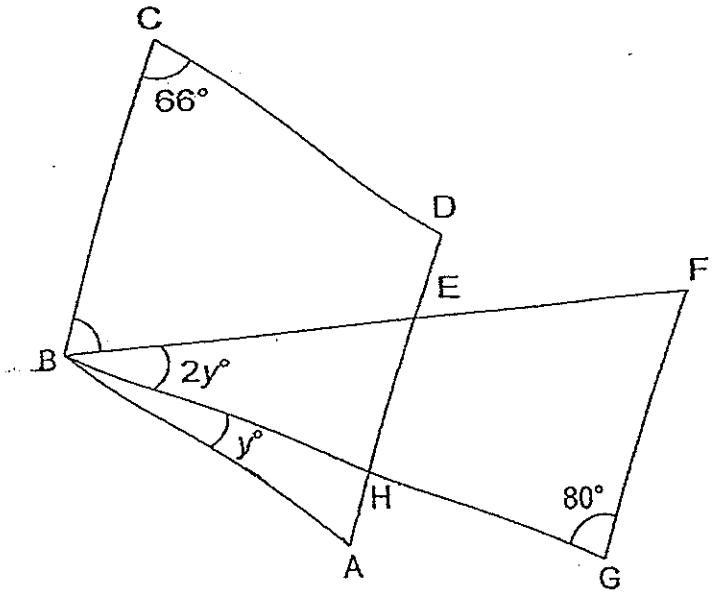
14) In a test, 10 marks were awarded for every question answered correctly.
5 marks were deducted for every question answered incorrectly.
A candidate answered 7 questions incorrectly and scored 195 marks.
Find the total number of questions in the test.

Ans:_____[4m]

15) In the diagram below, not drawn to scale, ABCD is a rhombus. BEF and BHG are straight lines. DA is parallel to FG.

(a) Find ∠GBF.

(b) Find ∠FBC.



Ans: (a)_____[3m]

(b)_____[2m]

16) Ahmad receives \$5 more pocket money than Faizal each week.
Both spend \$15 per week on food and save the rest.
After a few weeks, Ahmad saves \$72 but Faizal only saves \$32.

(a) What is Ahmad's weekly pocket money?

(b) Faizal wants to buy a watch that costs \$44. How many more weeks must he save in order to buy it?

Ans: (a)_____ [3m]

(b)_____ [2m]

17) Meg and Lea have some white and black bands.
The number of white ~~and black~~ bands that Meg has are in the ratio 7 : 8.
Lea has twice as many white bands as black bands.
Meg gives half of her black bands to Lea and has 132 bands left.
In the end, the ratio of the number of white bands to the number of black bands that Lea has becomes 5 : 4.

(a) How many black bands has Meg given to Lea?

(b) How many bands does Lea have in the end?

Ans: (a)_____[3m]

(b)_____ [2m]

18) At Shop A, Mr Tang bought a laptop for $2400 which was 20% more than the price that Shop B sold it for.

(a) How much did Shop B sell the laptop at?

(b) During a sale, both shops offered an equal percentage discount on the same laptop. Mr Tang bought a second laptop at Shop B and paid $320 less than the discounted price in Shop A. What was the percentage discount?

Ans: (a)_____ [2m]

(b)_____ [3m]

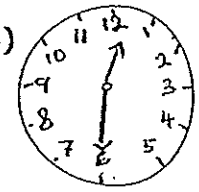
- END OF PAPER 2 -

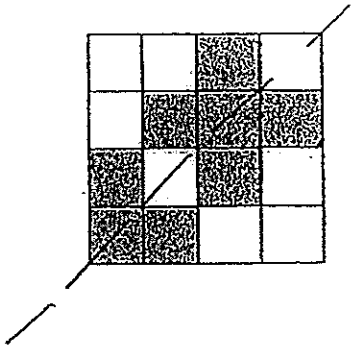
ANSWER SHEET

EXAM PAPER 2014
SCHOOL : TAO NAN
SUBJECT : PRIMARY 6 MATHEMATICS

TERM : SA1

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
3	3	2	1	2	1	4	4	2	4	3	2	4	3	3

16)24 17)8624 18)  19)800.7 20)1.39M

21)$2.50 22) 

23)37.5% 24)50°

25) 1/3 26)16 : 15 : 10 27)200

28)57% 29)80 years 30)8 cm

Paper 2

1)8/24 = 1/3

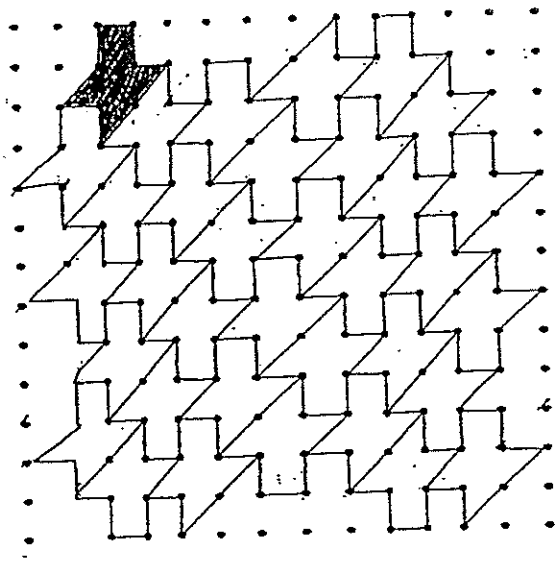
2)$\frac{m-32}{2}$

3)10% of 60% →6%
20% 0f 40% →8%
100% - 8% - 6% = 86%

4)95 x 3 = 285
90 + 99 = 189
285 − 189 = 96

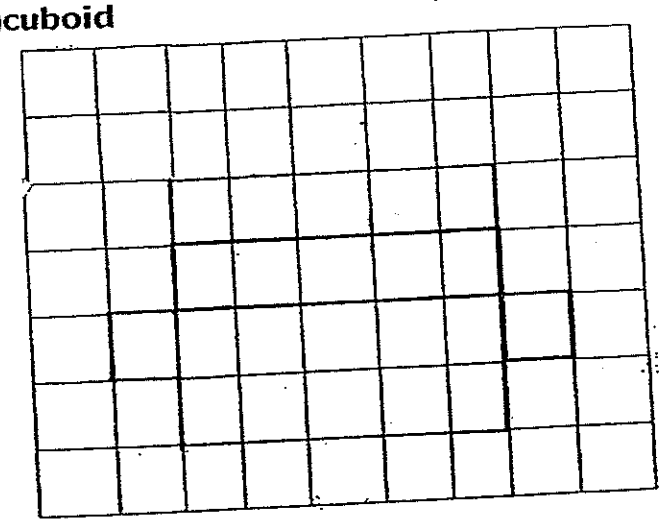
5)648 ÷ 8 = 81
$\sqrt{81}$ = 9
14 x 9 = 126 cm

6)a)b)



7)a)decrease
b)3/5 = 60%

8)a)cuboid
b)



9)84 x 2 = 168
62 x 6 = 372
372 + 168 = 540
6 + 2 = 8
540÷8 = $67.50

10)3 – 2 = 1
42 + 3 = 45
45÷1 = 45
45 x 2 = 90
90 + 3 = 93

11)A : B : C
1 : 2 : 3
5 : 10 : 15

4+1+9+5 = 19
4+9+5 = 18
18
19 of the figure is unshaded

12)a)14 + 24 = 38
38÷2 = 19
24 – 19 = 5
70 ÷5 = 14
14 x 10 = 140
b)14 x 38 = 532

13)a)600÷100 = 6
6 x 150 = 900
The month is January
b)910 + 90 = 1000
800 + 100 = 900
1000 – 900 = 100
100
1000 x 100% = 10%

14)7 x 5 = 35
195 + 35 = 230
230÷10 = 23
23 + 7 = 30

15)$180^\circ - 80^\circ = 100^\circ$
$180^\circ - 100^\circ - 66^\circ = 14^\circ$
$14^\circ \times 2 = 28^\circ$
$\angle$GBF is 28°
a)ans: 14°

$14^\circ \times 3 = 42^\circ$
$180^\circ - 66^\circ = 114$
$114^\circ - 42^\circ = 72^\circ$
$\angle$FBCis 72°
b)ans: 72°

16)a)$72 - 32 = 40$
$40 \div 5 = 8$
$8 \times 15 = 120$
$120 + 72 = 192$
$192 \div 8 = \$24$
b)$120 + 32 = 152$
$152 \div 8 = 19$
$19 - 15 = 4$
$44 - 32 = 12$
$12 \div 4 = 3$

17)a)$7 + 4 = 11$
$132 \div 11 = 12$
$12 \times 4 = 48$
b)$8 - 5 = 3$
$48 \div 3 = 16$
$10 + 8 = 18$
$16 \times 18 = 288$

18)a)$2400 \div 120 = 20$
$20 \times 100 = \$2000$
b)$400 - 320 = 80$
$2400 \div 100 = 24$
$2000 \div 100 = 20$
$24 - 20 = 4$
$80 \div 4 = 20\%$

					—	

Anglo-Chinese School (Junior)/ Anglo-Chinese School (Primary)

COMBINED PRELIMINARY EXAMINATION (2014)
PRIMARY 6

MATHEMATICS

PAPER 1
Booklet A

Wednesday **20 AUGUST 2014** **50 min**

INSTRUCTIONS TO PUPILS
1. Do not turn over this page until you are told to do so
2. Follow all instructions carefully.
3. Answer all questions.
4. Shade your answers in the Optical Answer Sheet (OAS) provided.
5. The use of calculators is **NOT** allowed

Name : _____ ( )

Class : 6.(**)**

Parent's Signature:_____

This question paper consists of 9 printed pages. (Inclusive of cover page)

Questions **1** to **10** carry 1 mark each. Questions **11** to **15** carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet (OAS). (20 marks)

1. Which one of the following numbers is the smallest?

   1) 0.807
   2) 0.087
   3) 0.708
   4) 0.078

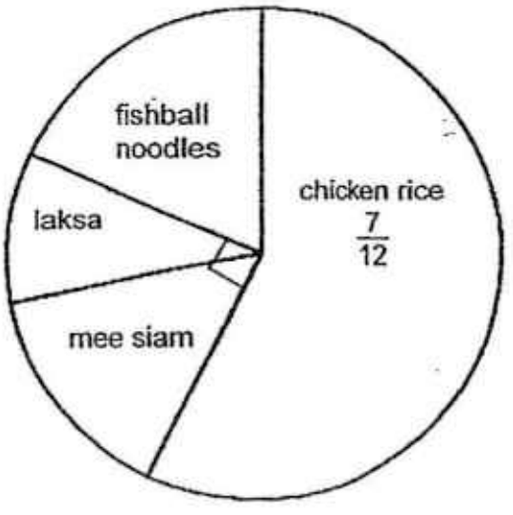
2. Express 2 h 5 min in minutes.

   1) 65 minutes
   2) 125 minutes
   3) 205 minutes
   4) 250 minutes

3. Round off 38 949 to the nearest hundred.

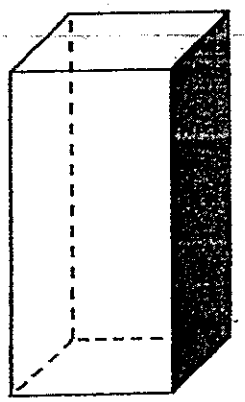
   1) 38 900
   2) 38 940
   3) 38 950
   4) 39 000

4. The pie chart shows the favourite food of a group of children. What is the ratio of the number of children who chose fishball noodles to the number of children who chose chicken rice?



1) 1 : 2
2) 1 : 7
3) 1 : 6
4) 2 : 7

5. The figure below shows a cuboid with a square base of area 25 cm^2. The height of the cuboid is 7cm. What is the area of the shaded face?



1) 5 cm^2

2) 35 cm^2

3) 125 cm^2

4) 175 cm^2

6. Mrs Tan has \$540. She spent $\frac{1}{4}$ of her money on Saturday and $\frac{2}{5}$ of her money on Sunday. How much more did she spend on Sunday than on Saturday?

1) \$81

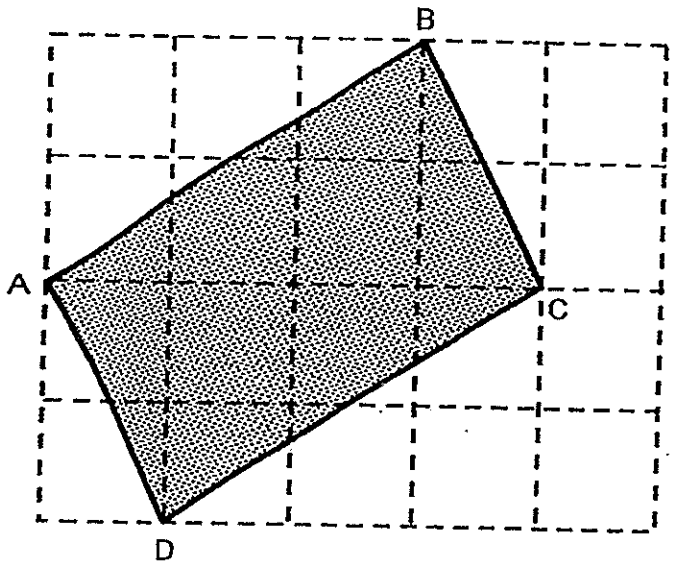
2) \$135

3) \$216

4) \$351

7. Quadrilateral ABCD is drawn on a square grid.

Quadrilateral ABCD is a _____.

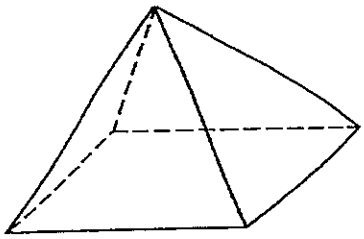


1) Rhombus
2) Rectangle
3) Trapezium
4) Parallelogram

8. If y = 6, what is the value of $13 - (5 + y - \frac{2y}{3})$.

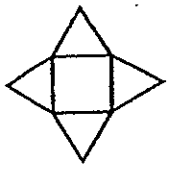
1) 10
2) 7
3) 6
4) 4

9. The figure below shows a right pyramid with a square base.

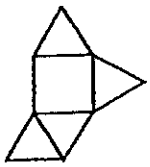


Which one of the following is <u>not</u> a net of the solid?

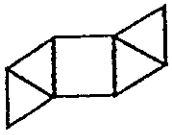
1)



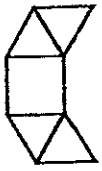
2)



3)



4)



10. The number of pigs in a farm is twice the number of chickens. A pig has 4 legs and a chicken has 2 legs. Given that there are 6 chickens, find the total number of legs these animals have.

1) 24
2) 36
3) 48
4) 60

11. Study the table below.

Fitness Test Standards for Boys		
Performance Grade	Points	Standing Broad Jump
A	5	More than 202 cm
B	4	189 – 202 cm
C	3	176 – 188 cm
D	2	163 – 175 cm
E	1	150 – 162 cm

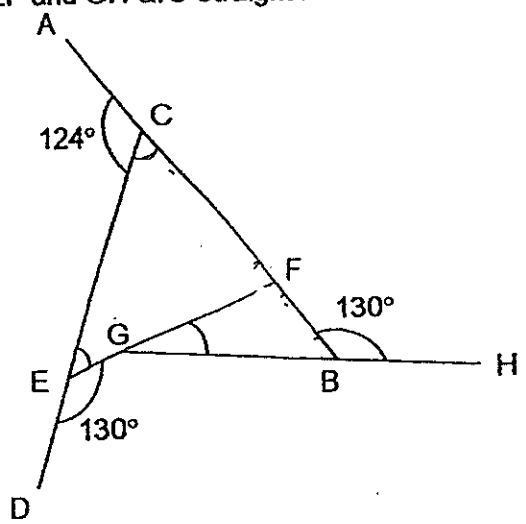
At the Standing Broad Jump station, Henry jumped a distance of 179 cm and Wayne jumped a distance of 206 cm. How far must Tim jump so that the average number of points of the three boys was 4 points?

1) 157 cm
2) 170 cm
3) 184 cm
4) 202 cm

12. The amount of money Sam had to the amount of money Gerald had was 4 : 3. Sam had $18 more than Gerald. He gave some money to Gerald and the amount of money Sam had to the amount of money Gerald had became 1 : 2. How much did Sam give to Gerald?

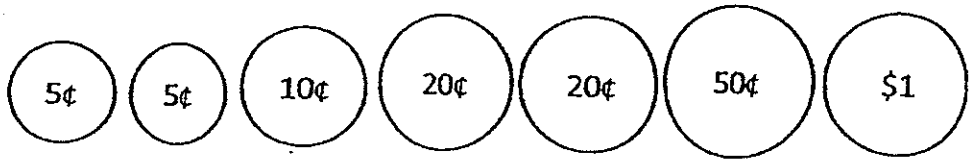
1) $6
2) $18
3) $30
4) $90

13. In the figure, AB, CD, EF and GH are straight lines. Find ∠FGH.



1) 24°
2) 50°
3) 56°
4) 74°

14. Amy had the following coins in her coin pouch.



She took out 3 coins from her pouch and placed them into a donation can. Which of the following amounts could **not** be the amount taken out of her pouch?

1) $ 0.45
2) $ 0.75
3) $ 0.85
4) $ 1.15

15. 5 similar tins and 8 similar bottles can hold 36 litres of oil. Given that each tin can hold twice as much oil as each bottle, how much oil can each tin hold?

1) 16ℓ
2) 2ℓ
3) 20ℓ
4) 4ℓ

Anglo-Chinese School (Junior)/
Anglo-Chinese School (Primary)

COMBINED PRELIMINARY EXAMINATION (2014)
PRIMARY 6

MATHEMATICS

PAPER 1
Booklet B

Wednesday 20 AUGUST 2014 50 min

INSTRUCTIONS TO PUPILS
1. Do not turn over this page until you are told to do so
2. Follow all instructions carefully.
3. Answer all questions.
4. Write your answers in this booklet.
5. The use of calculators is **NOT** allowed

Name : _____ ( )

Class : 6.( )

Parent's Signature: _____

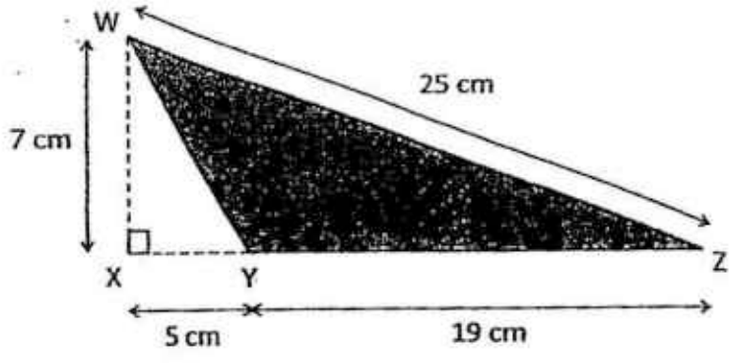
This question paper consists of 9 printed pages. (Inclusive of cover page)

Questions **16** to **25** carry 1 mark each. Write your answers in the spaces provided. Give your answers in the units stated and to its simplest form whenever necessary. (10 marks)

16. What does the digit 4 in 946 782 stand for?

Answer : _____

17. In the figure below, XYZ is a straight line. What is the area of triangle WYZ?



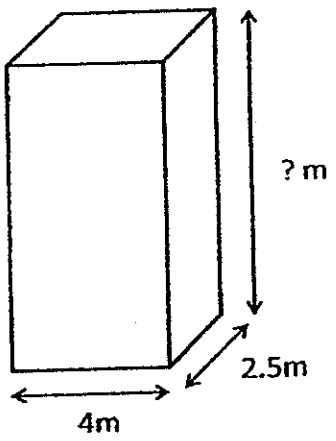
Answer : _____ cm^2

 Sub-Total :

18. Mrs Bala went to a fruit store with \$50. She bought 2 papayas and 9 apples. 1 papaya cost \$2k and 3 apples cost \$k. How much had she left after her purchases? Give your answer in terms of k in its simplest form.

Answer : \$ _____

19. The capacity of the rectangular tank shown below is 89 m^3. What is the height of the tank?



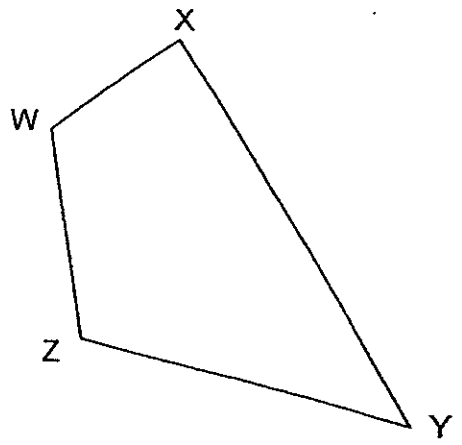
Answer : _____ m

Sub-Total :

20. Dave finished his 1.6 km run in 9 min 39 s. Muthy finished his 1.6 km run in 7 min 45 s. How much faster was Muthy in the 1.6 km run? Give your answer in seconds.

Answer : _____ s

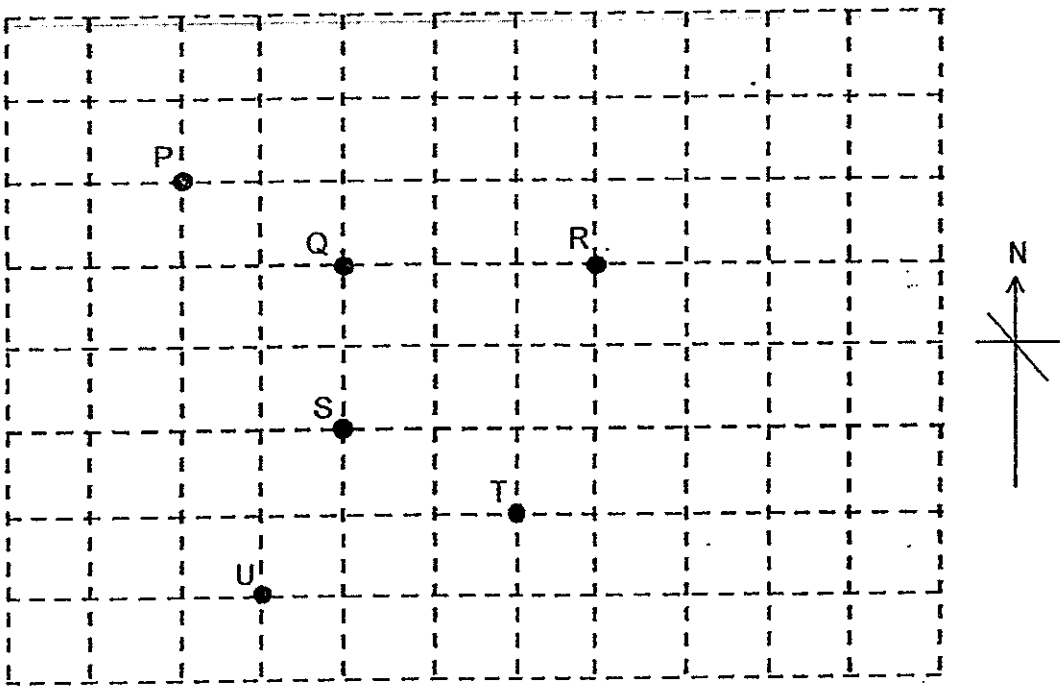
21. Measure and write down the size of ∠XYZ.



Answer : _____ °

Sub-Total : [ ]

22. Refer to the square grid below and fill in the blanks with P, Q, R, S, T or U.



Point _____ is north-west of Point _____.

Answer : _____ and _____

Sub-Total :

23. Peter had a piece of string that was 3.05 m long. He cut off 2.5 m from it. What is the length of the remaining string?

Answer : _____ cm

24. Simplify $95 \div (7 - 2) + 4 \times 2$.

Answer : _____

25. The sum of 2 numbers is 220. Their difference is 20. What is the greater number?

Answer : _____

Sub-Total :

Questions **26** to **30** carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

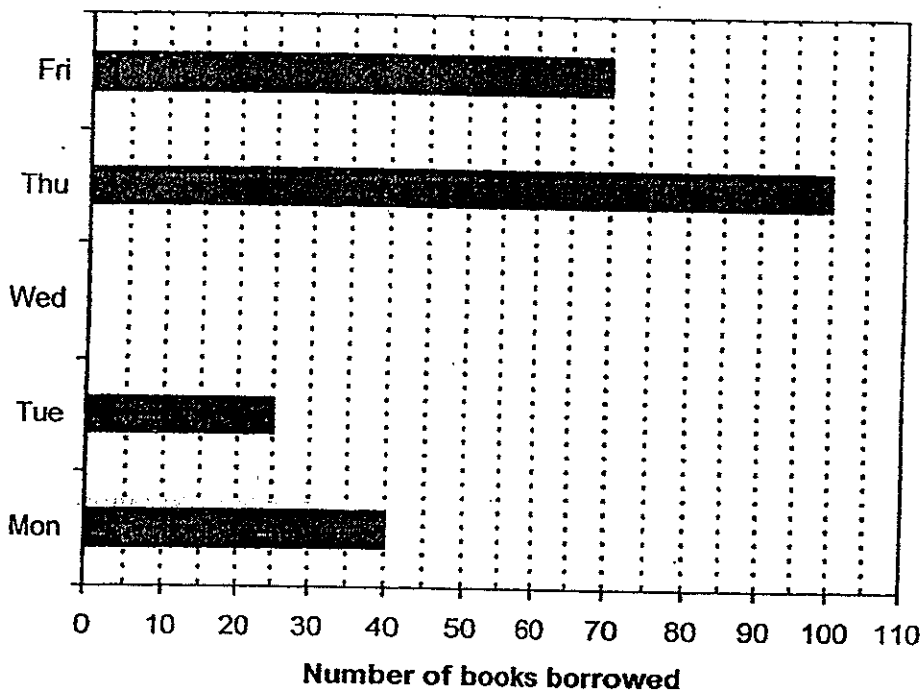
26. Silas has $m. Muthu has $8 more than Silas. Ken has half of what Silas and Muthu have altogether. How much does Ken have?

Answer : $ _____

27. Mrs Lee had $210. She spent 40% of her money on a dress. She then spent 20% of the remainder on a scarf. How much did she spend on the scarf?

Answer : $ _____

28. The graph below shows the number of books the pupils borrowed from a school library in five days. The bar that shows the number of books borrowed on Wednesday has not been drawn.



(a) The average number of books borrowed each day from Monday to Friday was 64. Find the total number of books borrowed on **Wednesday**.

Answer : _____

(b) What was the percentage decrease in the number of books borrowed from Monday to Tuesday?

Answer : _____ %

Sub-Total : [ ]

29. The perimeter of a rectangle is 72cm. Its length is 3 times its breadth. What is the area of this rectangle?

Answer : _____ cm^2

30. Susan bought a pizza and ate $\frac{1}{3}$ of it. She cut the remaining equally into 4 slices. What fraction of the whole pizza was each slice?

Answer : _____

Sub-Total :

Anglo-Chinese School (Junior)/
Anglo-Chinese School (Primary)

COMBINED PRELIMINARY EXAMINATION (2014)
PRIMARY 6

MATHEMATICS

PAPER 2

Wednesday 20 AUGUST 2014 1hr 40 min

INSTRUCTIONS TO PUPILS
1. Do not turn over this page until you are told to do so
2. Follow all instructions carefully.
3. Answer all questions.
4. Show all your workings as marks are awarded for correct working.
5. Write your answers in this booklet.
6. The use of an approved calculator is expected, where appropriate.

Name : _____ ( )

Class : 6.( )

Parent's Signature: _____

Booklet / Paper	Possible Marks	Marks Obtained
Booklet A	20	
Booklet B	20	
Paper 2	60	
Total	100	

This question paper consists of 15 printed pages. (Inclusive of cover page)

Questions **1** to **5** carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

1. The average age of 3 boys is 12 yrs 3 mths. When another boy joins the group, their average age becomes 11 yrs 7 mths. What is the age of the fourth boy in years and months?

Answer : _____ yrs _____ mths

2. The following table shows the amount paid to workers per hour by a fast food company.

	Weekday Rate	Weekend Rate
FriesQueen	$6.55 / hr	$10.25 / hr

Every week, Mitch works 4 weekdays for 6 hours each day and on Saturday for 8 hours. How much does he earn in a week?

Answer : $ _____

Sub-Total :

3. Danny is making some Bubble Tea according to the following recipe.

Bubble Tea
(makes 3 glasses)

45g soya powder
250ml water
25g pearls

He has 160g of soya powder, 1050ml of water and 200g of pearls. What is the maximum number of glasses of Bubble Tea he can make?

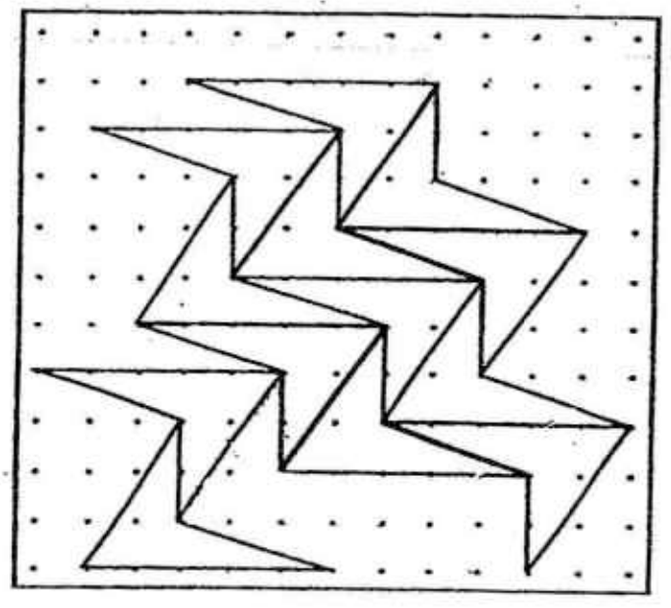
Answer _____

4. Michael had 8 stickers more than Andy. Andy had 10 stickers more than Franklin. Given that the three boys had a total of 280 stickers, how many stickers did Michael have?

Answer : _____

Sub-Total : [ ]

5. The pattern in the box shows part of a tessellation. Extend the tessellation by drawing **two** more unit shapes in the space provided within the box.



Sub-Total :

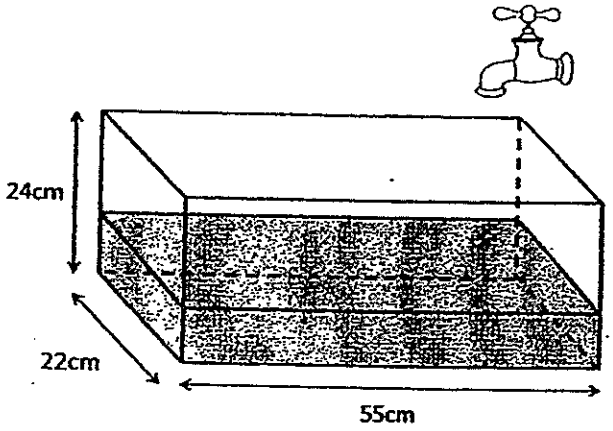
For questions **6** to **18**, show your working clearly question and write your answers in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question. (50 marks)

---

6. The total amount of water in Jar A and Jar B is 1050 mℓ. The total amount of water in Jar B and Jar C is 1320 mℓ. The amount of water in Jar A is $\frac{1}{2}$ the amount of water in Jar C. What is the average amount of water in the three jars?

Answer : _____ [3]

7. A tank was $\frac{1}{3}$ filled with water at first. Dillon turned on a tap and let water flow into the tank at a rate of 1.36 ℓ per minute. After 15 minutes, he turned off the tap. How much water had overflowed?



Answer : _____ [3]

Sub-Total

8. DIZ Orchestra performed at the concert hall on two evenings. On the first evening, there were 70 more men than women in the audience. On the second evening, the number of men decreased by 10% and the number of women increased by 20%. Given that there were 1428 men and women on the second evening, how many men were present on the second evening?

Answer : _____ [3]

9. Three sisters gave an equal amount of money to buy a present for their mother. Tracy used $\frac{3}{5}$ of her money, Nancy used $\frac{1}{2}$ of her money and Lancy used $\frac{2}{3}$ of hers. They had a total of $1395 at first. How much money did each sister give for the present?

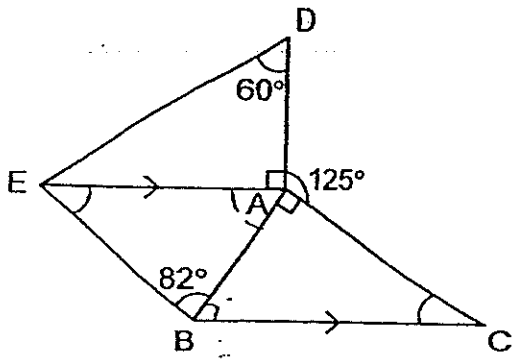
Answer : _____ [3]

Sub-Total : [ ]

10. In the figure, ABC and ADE are right-angled triangles and EA is parallel to BC.

Find (a) ∠ACB, and

(b) ∠AEB.



Answer : (a) _____ [2]

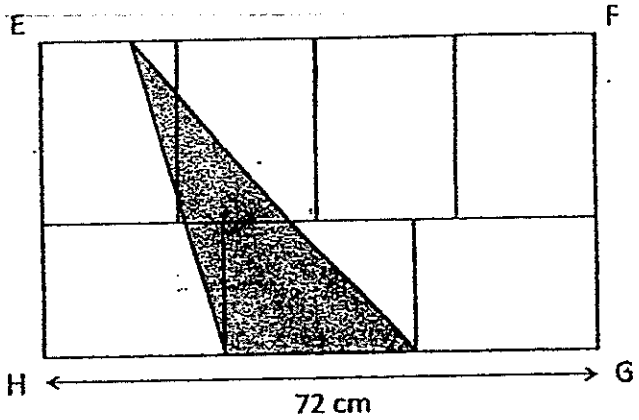
(b) _____ [1]

Sub-Total :

11. In the figure below, rectangle EFGH is made up of 7 identical rectangles.

(a) Find the perimeter of rectangle EFGH.

(b) Find the area of the shaded triangle.



Answer : (a) _____ [3]

(b) _____ [1]

Sub-Total :

12. Josiah, Gerald and Marcus had a total of 1280 stamps in their collection. Josiah gave away $\frac{2}{5}$ of his stamp collections. Gerald gave away 120 stamps and Marcus gave away twice as many stamps as Josiah. In the end, they had 740 stamps left. How many stamps did Gerald and Marcus have altogether in the end?

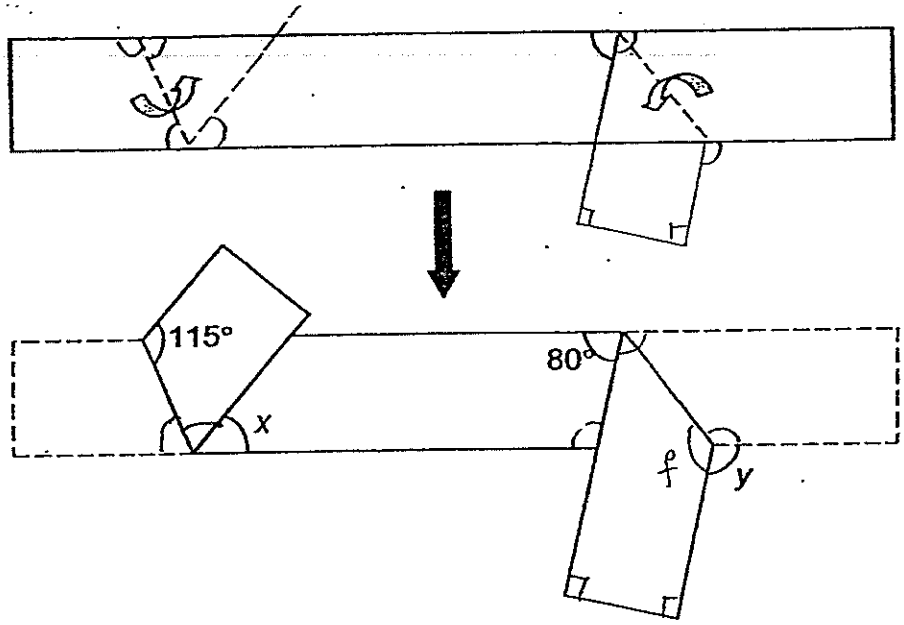
Answer : _____ [4]

Sub-Total :

13. A piece of paper in the shape of a rectangle is folded along the dotted line as shown below.

Find (a) $\angle x$, and

(b) $\angle y$



Answer : (a) _____ [2]

(b) _____ [2]

Sub-Total :

14. At 08 00, Ruben started from Town X and travelled towards Town Y and did not change his speed. At 09 00, Mingwei started his journey from Town X towards Town Y at an average speed of 72 km/h. Mingwei overtook Ruben at 12 00. After overtaking, Mingwei carried on his journey at the same average speed and reached Town Y at 14 30.

(a) Find Ruben's average speed, in km/h.
(b) What is the distance between Town X and Town Y?

Answer : (a) _____ [2]

(b) _____ [2]

Sub-Total : [ ]

15. The water bill is charged at the following rates:

First 20 units	\$0.73 per unit
Next 20 units	\$0.90 per unit
~~Above~~ 40 units	\$1.21 per unit

After

(a) Mr Tan's family used 28 units. How much did Mr Tan pay?

(b) Mr Lee's family used 48 units. How much did Mr Lee pay?

(c) If Gary's family paid \$26.30 for the water bill, how many units did they use?

Answer : (a) _____ [1]

(b) _____ [1]

(c) _____ [2]

Sub-Total : [ ]

16. John spent \$4968 on bags and shoes. The number of pairs of shoes he bought was $\frac{2}{5}$ the number of bags he bought. The cost of a pair of shoes was \$12 more than the cost of a bag. He paid \$1512 more on bags than on shoes. Find the cost of a bag.

Answer : _____ [5]

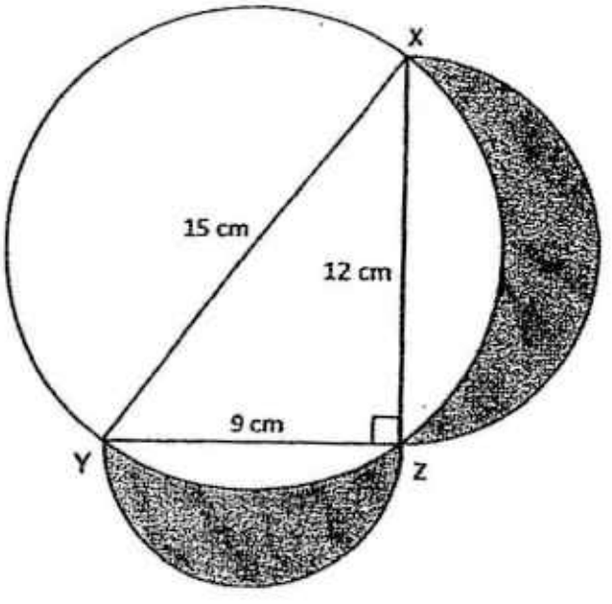
Sub-Total :

17. The figure below is made up of a circle and 2 semi-circles. XY is the diameter of the circle. XY is 15 cm, XZ is 12 cm and YZ is 9 cm.

(a) What is the total area of the shaded parts?

(b) What is the total perimeter of the shaded parts?

(Take $\pi = 3.14$)



Ans: (a) _____ [3]

(b) _____ [2]

Sub-Total :

18. There were a total of 665 black and red pens in a box. The number of black pens to the number of red pens was 3 : 4. Some green pens and purple pens were put into the box. For every 5 red pens that were already in the box, 12 purple ones were added. Then the final number of black pens and green pens was $\frac{1}{4}$ the final number of red pens and purple pens. Find the ratio of the number of green pens to the number of purple pens. Give your answer in its simplest form.

Answer : _____ [5]

End of Paper 2

Exam Paper 2014 Answer Sheet

School: ANGLO-CHINESE SCHOOL (JUNIOR/PRIMARY)
Subject: PRIMARY 6 MATHEMATICS
Term: COMBINED PRELIM

Paper 1

1)	4	6)	1	11)	4
2)	2	7)	4	12)	3
3)	1	8)	3	13)	1
4)	4	9)	4	14)	3
5)	2	10)	4	15)	4

16. 40000

17. 66.5

18. (50 – 7k)

19. 8.9

20. 114

21. 44

22. P; T

23. 55

24. 27

25. 120

26. S → \$m
M → \$(m + 8)
K → \$($^{2m + 8}/_{2}$)

27. Scarf → $^{20}/_{100}$ x 60 = 12%
$^{12}/_{100}$ x \$210 = **\$25.20**

28. (a) 64 x 5 = 320
40 + 25 + 70 + 100 = 235
320 – 235 = **85**
(b) 40 – 25 = 15
$^{15}/_{40}$ x 100% = **37.5%**

29. 8u → 72
1u → 9
3u → 27

27 x 9 = **243**

30. $^2/_3 \div 4 = {}^1/_6$

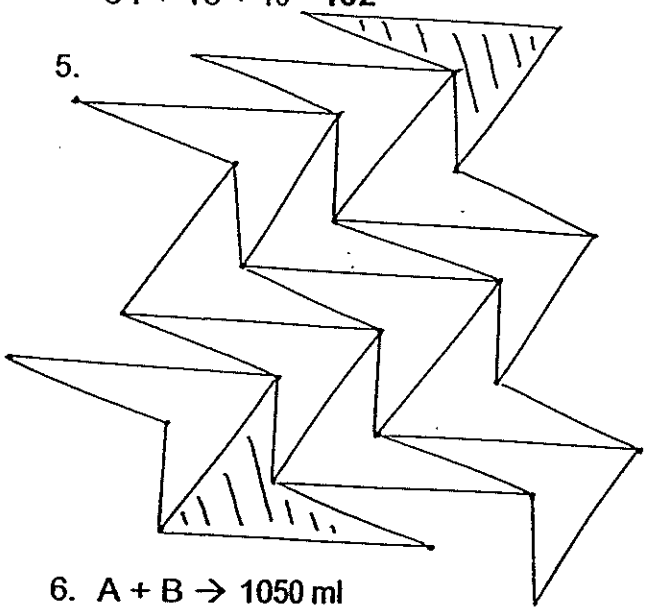
Paper 2

1. 3 boys:
   Average → 12years 3 months
   Total → 36 years 9 months
   4 boys:
   Average → 11 years 7 months
   Total → 44 years 28 months
   44 – 36 = 8 years
   28 – 9 = 19 months
   Total: **8 years 19 months**

2. 1 weekday (6hrs) → $6.55 x 6 = $39.90
   4 weekdays (24hrs) → $6.55 x 24 = $157.20
   Weekend: 1hr → $10.25
   8 hrs → $10.25 x 8 = $82
   $157.20 + $82 = **$239.20**

3. 160 ÷ 45 = 3.55
   1050 ÷ 250 = 4.2
   200 ÷ 25 = 8
   3 x 3 = **9**

4. 3u → 280 – 10 – 10 – 8 = 252
   1u → 84
   84 + 10 + 10 = **102**

5. 

6. A + B → 1050 ml
   B + C → 1320 ml
   1320 ml – 1050 ml = 270 ml (A)
   A → 270 m l
   B → 1050 ml – 270 ml = 780 ml
   C → 270 ml x 2 = 540 ml

1590 ÷ 3 = **530 ml**

7. Total vol. → 24 x 22 x 55 = 29040
   Water vol. → 22 x 55 x 8 = 9680
   29040 – 9680 = 19360 cm^3 = 19.36 litres
   15 mins x 1.36 litres/min = 20.4 litres
   20.4 litres – 19.36 litres = **1.04 litres**

8. 2nd evening
   Men → 10u x 90% + 70 x 90% = 9 u + 63
   Women → 10u x 120% = 12u
   9u + 63 + 12u = 1428
   21u → 1428 – 63 = 1365
   1u → 65
   Men → 9 x 65 + 63 = **648**

9. 31u → 1395
   1u → 45
   6u → **$270**

10. Angle EAB → 360 – 90 – 90 – 125 = 55° = angle ABC
    (a) Angle → 180 – 90 – 55 = **35°**
    (b) Angle 180 – 55 – 82 = **43°**

11. 4B → 72
    1B → 18
    3L → 72
    1L → 24
    24 + 18 = 42
    (a) 42 x 2 + 72 x 2 = **228 cm**
    (b) 0.5 x 24 x 42 = **504 cm^2**

12. Give
    J → $^2/_5$ of hrs
    G → 120
    M → $^4/_5$ of y
    1280 – 740 = 540
    $^6/_5$ of J → 540 – 120 = 420
    $^1/_5$ of J → 70
    $^5/_5$ of J → 350
    $^3/_5$ of J → 210
    740 – 210 = **530**

13. (a) Angle a → 180 – 115 = 65
        Angle b = angle a = 65
        Angle x = 180 – 65 – 65 = **50°**
    (b) Angle C = Angle d = (180 – 80) ÷ 2 = 50
        Angle e = Angle f = 180 – 50 = 130
        Angle y = 360 – 130 – 130 = **100°**

14. 0900 → 1430
(5h $^1/_2$h)
0900 → 1200
(3h)
72 km/h x 3h = 216km
0800 → 1200
(4h)
(a) 216 km ÷ 4h = **54km/h**
(b) 5$^1/_2$h x 72 km/h = **396km**

15. (a) 1st 20u → \$0.73 x 20 = \$14.60
Next 8u →\$0.90 x 8 = \$7.20
\$14.60 + \$7.20 = **\$21.80**
(b) \$14.60 (1st 20u) + (\$0.90 x 20) + (\$1.21 x 8) = **\$42.28**
(c) \$26.30 - \$14.60 = \$11.70
\$11.70 ÷ \$0.90 = 13u
20u + 13u = **33u**

16. \$4968 - \$1512 = \$3456
\$3456 ÷ 2 = \$1728 (total \$ of s)
\$1728 + \$1512 = \$3240
4320 – 3240 = 1080
1080 ÷ 12 = 90
3240 ÷ 90 = **\$36**

17. (a) 0.5 x 3.14 x 6 x 6 = 56.52
0.5 x 3.14 x 4.5 x 4.5 = 31.7925
Area of half main circle → 0.5 x 3.14 x 7.5 x 7.5 = 88.3125
Area of triangle → 0.5 x 12 x 9 = 54
Shaded part → 56.52 + 31.7925 + 54 = **88.3125cm**
(b) L S-C curve → 18.84
S S-C curve → 14.13
Main S-C curve → 23.53
Total part → 23.55 + 14.13 + 18.84 = **56.52 cm**

18. B : R
3 : 4
7u → 665
1u → 95
4u → 380 (R)
3u → 285 (B)
5r → 12p
380r →912p
r + p = 1292
b + g = 1292 ÷ 4 = 323
G → 38
G : P
38 : 912
1 : 24

CATHOLIC HIGH SCHOOL

PRELIMINARY EXAMINATION 2 2014

MATHEMATICS

PRIMARY 6

PAPER 1

(BOOKLET A)

Name :_____

Class: Primary 6 _____

Date: 21 August 2014

Total Time for Booklets A and B: 50 min

15 questions

20 marks

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.

Follow all instructions carefully.

Answer all questions.

Shade your answers in the Optical Answer Sheet (OAS) provided.

The use of calculators is **NOT** allowed.

Booklet A and B consist of 12 printed pages.

Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the oval (1, 2, 3 or 4) on the Optical Answer Sheet. All diagrams are not drawn to scale. (20 marks)

---

1. 50 653 people took part in a marathon. Express this number to the nearest hundred.

   (1) 50 000
   (2) 50 600
   (3) 50 700
   (4) 51 000

---

2. Which one of the following is the same as 3080 ml?

   (1) 3 ℓ 8 ml
   (2) 3 ℓ 80 ml
   (3) 30 ℓ 8 ml
   (4) 30 ℓ 80 ml

---

3. 450.1 ÷ 300 is the same as _____.

   (1) 450.1 ÷ 3 ÷ 100
   (2) 450.1 ÷ 3 × 100
   (3) 450.1 ÷ 100 × 3
   (4) 450.1 ÷ 10 × 30

---

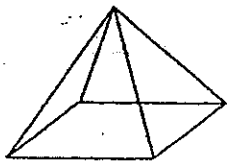
4. Arrange the following numbers from the smallest to the largest.

   7, 7.2, 7.02

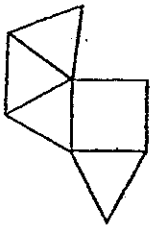
   (1) 7 , 7.2 , 7.02
   (2) 7 , 7.02 , 7.2
   (3) 7.2 , 7.02 , 7
   (4) 7.02 , 7 , 7.2

---

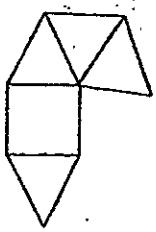
5. The figure below shows a pyramid.



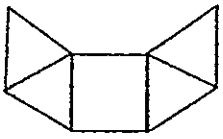
Which one of the following is a net of the pyramid?



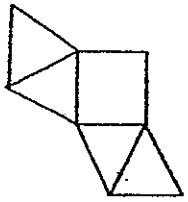
(1)



(2)



(3)



(4)

---

6. A basket contains some apples and oranges. There are $\frac{2}{5}$ as many oranges as apples in a basket. What fraction of the fruits in the basket is apples?

(1) $\frac{2}{7}$

(2) $\frac{3}{7}$

(3) $\frac{4}{7}$

(4) $\frac{5}{7}$

---

7. Emily uses 2 eggs to make 18 cupcakes. How many eggs does she use to make 117 cupcakes?

(1) 13

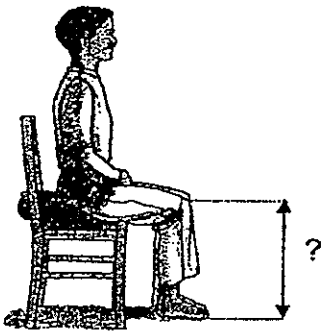
(2) 10

(3) 9

(4) 6

---

8. Mr Rajah sits on a chair with his feet touching the floor. Which one of the following could be the possible height measured vertically from the floor to his knees?



(1) 5000 cm

(2) 500 cm

(3) 50 cm

(4) 5 cm

---

9. Find the value of $\frac{3w}{2} - w + 4$ when $w = 36$.

(1) 14

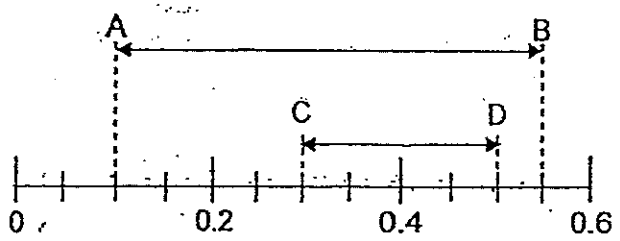
(2) 18

(3) 22

(4) 76

(Go on to the next page)

10. In the number line below, how much longer is AB than CD?



(1) 0.25

(2) 0.30

(3) 0.40

(4) 0.55

---

11. What percentage of 1 litre is 50 cm^3?

(1) 5%

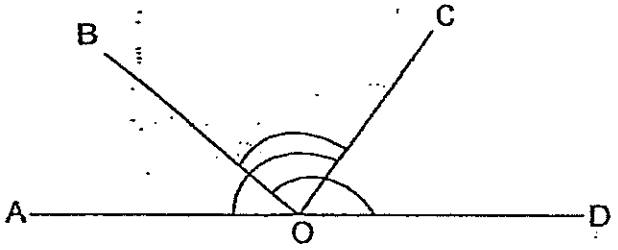
(2) 2%

(3) 20%

(4) 50%

---

12. In the figure, AOD is a straight line. $\angle AOC = 125°$ and $\angle BOD = 142°$. What is $\angle BOC$?



(1) 17°

(2) 38°

(3) 55°

(4) 87°

(Go on to the next page)

13. Aden and Brandon were standing in a queue to board a bus. Aden was in the middle of the queue. Brandon was 19th in the queue and behind Aden. There were 6 people between them. How many people were standing in the queue to board the bus?

(1) 23

(2) 24

(3) 25

(4) 26

---

14. Jerina bought an equal number of vanilla and chocolate ice-creams for a party. $\frac{2}{5}$ of the vanilla ice-creams and $\frac{1}{3}$ of the chocolate ice-creams were left at the end of the party. What fraction of the total number of ice-creams was eaten?

(1) $\frac{11}{30}$

(2) $\frac{19}{30}$

(3) $\frac{11}{15}$

(4) $\frac{19}{15}$

---

15. The usual price of a racket in a shop was \$218. Jon bought a racket at a discount with 7% GST on the discounted price. How much was the discount if he paid \$214 for the racket?

(1) \$14.98

(2) \$19.26

(3) \$18

(4) \$4

END OF BOOKLET A

CATHOLIC HIGH SCHOOL

PRELIMINARY EXAMINATION 2 2014

MATHEMATICS

PRIMARY 6

PAPER 1

(BOOKLET B)

Name _____

Class: Primary 6 _____

Date: 21 August 2014

Total Time for Booklets A and B: 50 min

15 questions

20 marks

Booklet A	
Booklet B	
Total	

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.

Follow all instructions carefully.

Answer all questions.

Write your answers in this booklet.

The use of calculators is **NOT** allowed.

Booklet A and B consist of 12 printed pages.

Questions 16 to 25 carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

Do not write in this space.

16. Write 1 million, 4 hundred and nine thousand and five in figures.

Ans: _____

17. Express 0.75 as a percentage.

Ans: _____

18. Find the value of 2.58 × 19.

Ans: _____

(Go on to the next page)

19. List all the common factors of 16 and 24.

Ans: _____

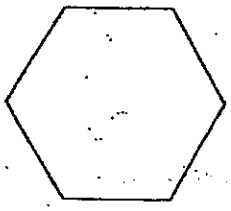
Do not write in this space.

20. What is the missing number in the box below?

$39 \times 7 + 11 \times 7 = \square \times 14$

Ans: _____

21. The figure below is one of the faces of a prism. How many faces does the prism have?



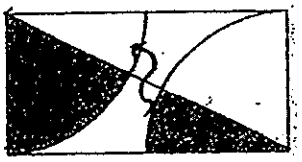
Ans: _____

Do not write in this space.

22. Alston spent $2\frac{2}{9}$ h to watch TV and play computer game. He used $\frac{1}{3}$ h to watch TV. How much time did he spend playing computer game? Give your answer in the simplest form.

Ans: _____ h

23. The figure is made up of a rectangle and two quarter circles. The breadth of the rectangle is 10 cm. What is the total area of the shaded parts? Give your answer in terms of π.



Ans: cm^2

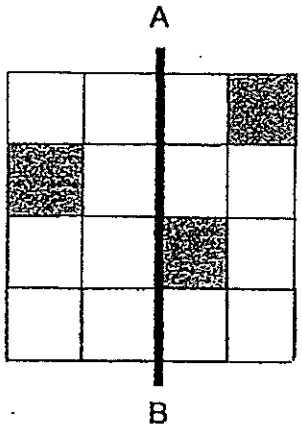
(Go on to the next page)

24. Mrs Chew bought 120 kg of flour. She repacked the flour into bags of $\frac{3}{8}$ kg each with no left over. How many bags of flour did she have?

Do not write in this space.

Ans:_____

25. The figure below is made up of squares.
Shade 3 more squares so that AB is the line of symmetry of the figure.



Total marks for questions 16 to 25

(Go on to the next page)

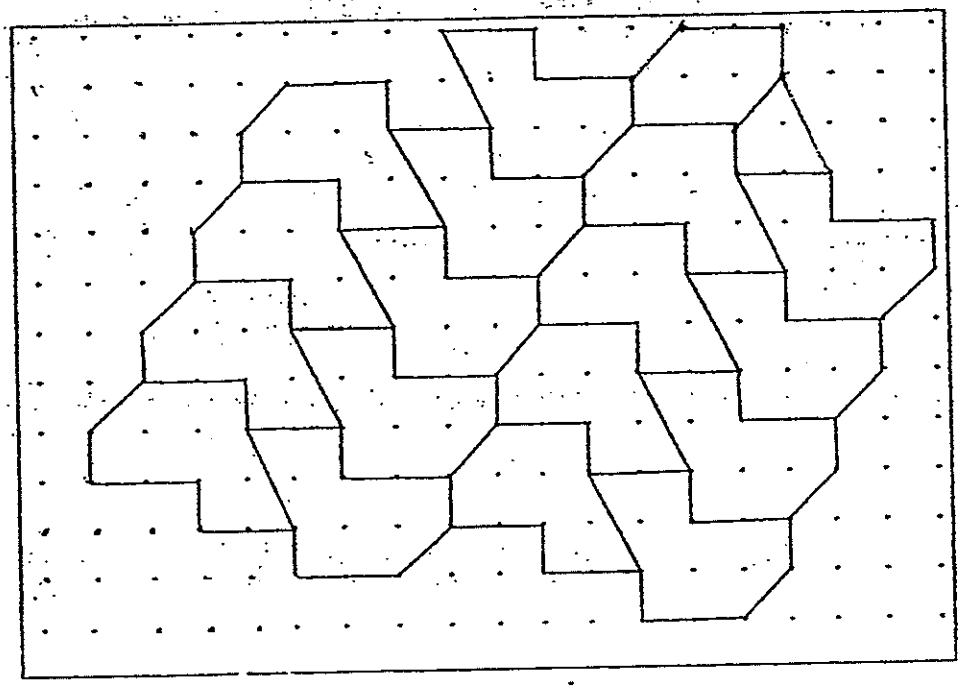
Questions 26 to 30 carry 2 marks each. Show your working and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

Do not write in this space.

26. For every purchase of two movie tickets, the third ticket is free. A movie ticket is priced at $10. George needs 8 movie tickets. How much does he need to pay for the tickets?

Ans: $_____

27. The pattern in the box shows part of a tessellation.
Extend the tessellation by drawing three more unit shapes in the space provided in the box.



(Go on to the next page)

28. Raphael bought a packet of sweets. He divided the sweets into 5 equal portions. He gave 1 portion and 9 more sweets to his younger brother. He was left with 23 sweets. How many sweets were there in the packet at first?

Do not write in this space.

Ans: _____

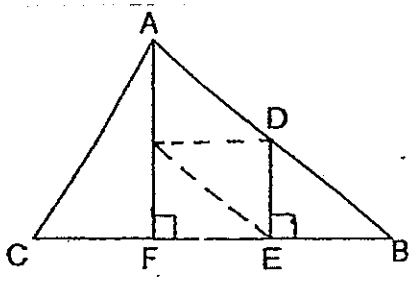
29. There are some theatres in a cinema complex. The average number of seats in a theatre is 224. 40 seats are removed and the average number of seats in a theatre becomes 219. How many theatres are there in the cinema complex?

Ans: _____

(Go on to the next page)

30. In the figure below, ABC is a triangle. Lines AF and DE are drawn perpendicular to CB. CF = FE = EB. The area of triangle DBE is 13.7 cm^2 and is half the area of triangle AFC.
What is the area of the triangle ABC?

Do not write in this space.



Ans:_____ cm^2

Total marks for questions 26 to 30

END OF BOOKLET B
END OF PAPER 1

CATHOLIC HIGH SCHOOL

PRELIMINARY EXAMINATION 2 2014

MATHEMATICS

PRIMARY 6

PAPER 2

Name : _____ ( )

Class: Primary 6 _____

Date: 21 August 2014

Total Time: 1 h 40 min

Paper 1 Booklet A	20
Paper 1 Booklet B	20
Paper 2	60
Total Marks	100

Parent's Signature: _____

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.

Follow all instructions carefully.

Answer all questions.

Write your answers in this booklet.

The use of an approved calculator is expected, where appropriate.

This booklet consists of 16 printed pages.

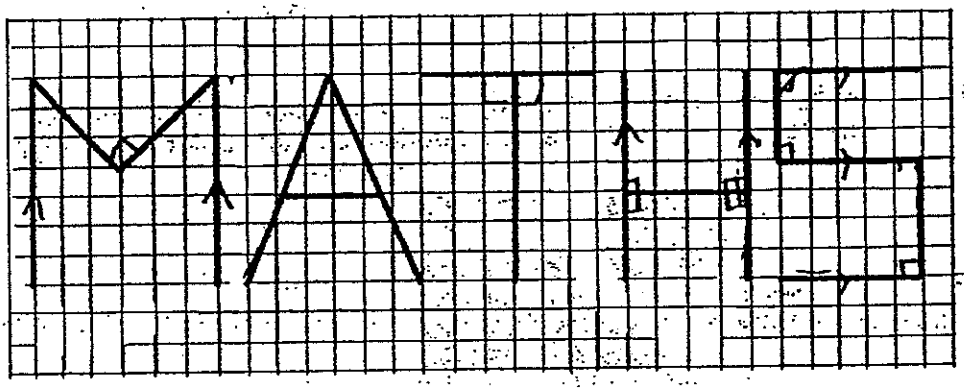
Questions 1 to 5 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. All diagrams are not drawn to scale. (10 marks)

Do not write in this space.

1. A string y cm long is cut into two pieces. One piece is 5 cm longer than the other. What is the length of the longer piece?
Give your answer in terms of y.

Ans: _____ cm

2. In the diagram below, the letters M, A, T, H and S are drawn on a square grid. List all the letters which have both perpendicular and parallel lines.



Ans: _____

(Go on to the next page)

3. The square grid below shows the plan inside a shopping centre.
The candy shop is north of the food court.

Do not write in this space.

			Toilet	
Bank		Candy shop		Toy shop
		Food court		

N

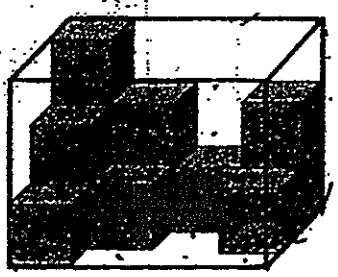
E

(a) In which direction is the candy shop from the bank?

(b) Mr Tan is setting up a sports shop.
The location of the sports shop is to be south-east of the candy shop and north-east of the food court.
Put a tick (√) in the square where the sports shop will be located.

Ans: (a) _____

4. The figure shows a rectangular glass tank partly filled with unit cubes.
How many more unit cubes are needed to fill the tank completely?



Ans: _____

(Go on to the next page)

5. Jeremy arranged 5 letters to form a pattern. The first 4 rows are as shown below.

Row 1	AB	CDE
Row 2	BA	ECD
Row 3	AB	DEC
Row 4	BA	CDE
⋮	⋮	⋮

Write the arrangement of the 5 letters in Row 83.

Ans: _____

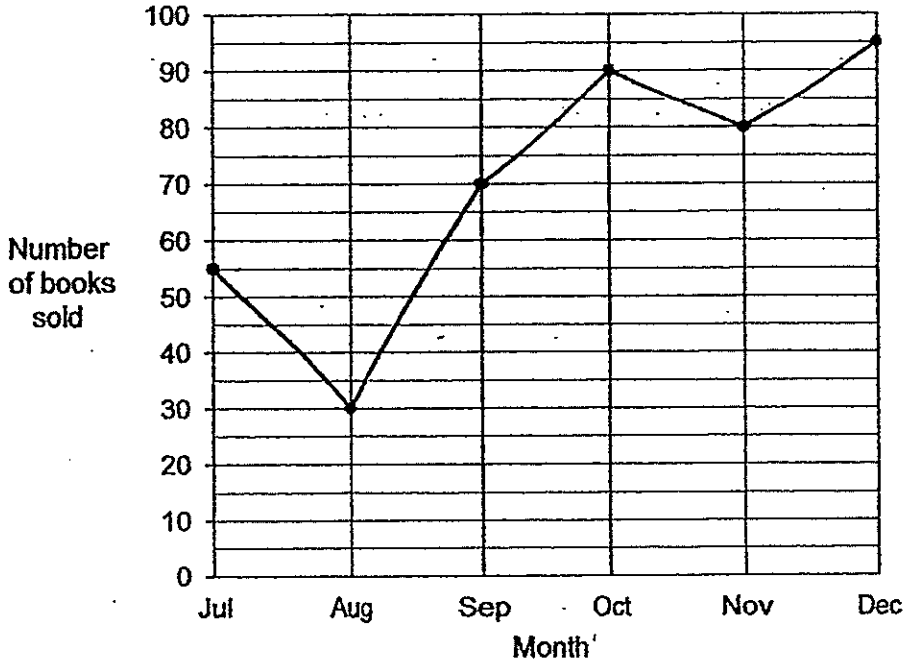
Do not write in this space.

(Go on to the next page)

For questions **6** to **18**, show your working and write your answers in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question. All diagrams are not drawn to scale. (50 marks)

Do not write in this space.

6. The line graph below shows the number of books sold by a shop from July to December in 2013.



(a) What was the average number of books sold per month from July to December in 2013?

(b) The total number of books sold for the same period from July to December in 2012 was 672. Find the percentage decrease in the total number of books sold for the same period from 2012 to 2013.

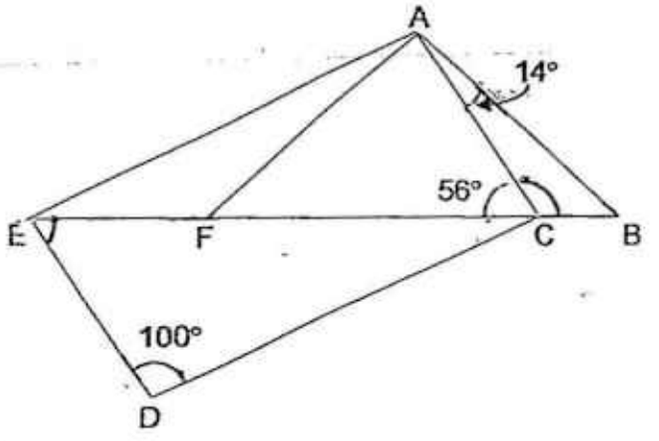
Ans:(a) _____ [1]

(b) _____ [2]

(Go on to the next page)

7. In the figure below, ACDE is a parallelogram and ABF is an isosceles triangle. EFCB is a straight line. $\angle CDE = 100°$, $\angle ACF = 56°$ and $\angle CAB = 14°$. Find $\angle EAF$.

Do not write in this space.

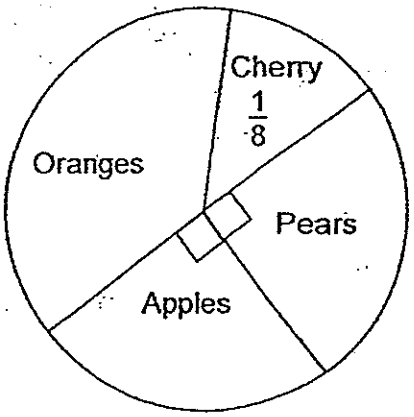


Ans: _____ [3]

(Go on to the next page)

8. The pie chart represents the number of fruits sold at a fruit stall. 650 apples were sold. How many oranges were sold?

Do not write in this space.



Ans: _____ [3]

(Go on to the next page)

9. When Jane started folding paper crane, Rose had already folded 80 paper cranes. For every 7 paper cranes that Jane folded, Rose folded 5 paper cranes. How many paper cranes would Jane have folded when both girls had the same number of paper cranes?

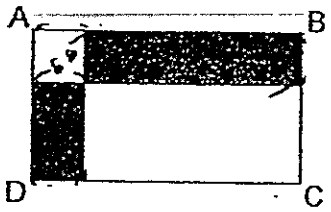
Do not write in this space.

Ans: _____ [3]

(Go on to the next page)

10. Rectangle ABCD is made up of an unshaded square, an unshaded rectangle and two shaded rectangles. The area of the square is 36 cm^2 and the perimeter of the unshaded rectangle is 76 cm. What is the total area of the 2 shaded rectangles?

Do not write in this space.



_____ [3]

(Go on to the next page)

11. Ivan needs balloons for a carnival. The balloons are sold in packets of 80 only. Each packet is sold at \$2.50. Ivan has the exact amount of money to buy $\frac{4}{5}$ of the required number of packets of balloons. When his mother gives him another \$15, he is able to buy the required number of packets of balloons. How many balloons does Ivan need?

Do not write in this space.

Ans:_____[4]

(Go on to the next page)

12. Ivan cycled from the school to the library at 80 m/min. His sister cycled from the library to the school at 65 m/min. Both of them started cycling towards each other at the same time and did not change their speeds throughout their journey. When Ivan reached the library, his sister was 480 m from the school. What was the distance between the school and the library?

Do not write in this space.

Ans: _____ [4]

(Go on to the next page)

13. Douglas had some stamps. He sold $\frac{2}{7}$ of the stamps and then gave 162 stamps to his best friend. He was left with $\frac{1}{5}$ of the stamps he had at first. How many stamps did Douglas have at first?

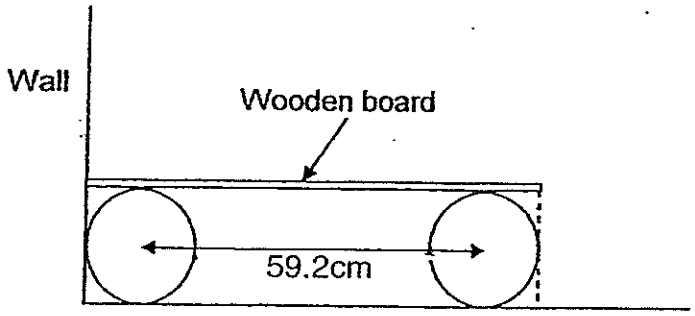
Do not write in this space.

Ans: _____ [4]

(Go on to the next page)

14. Danny built a skateboard using two identical wheels of radius 2.9 cm each and a wooden board as shown below. The distance between the centres of the two wheels is 59.2 cm. He rolled the skateboard from one end of the room to the other end touching the walls at both ends. The distance between the two walls is 11.2 m. How many complete revolutions did each wheel make?
Take $\pi = 3.14$.

Do not write in this space.

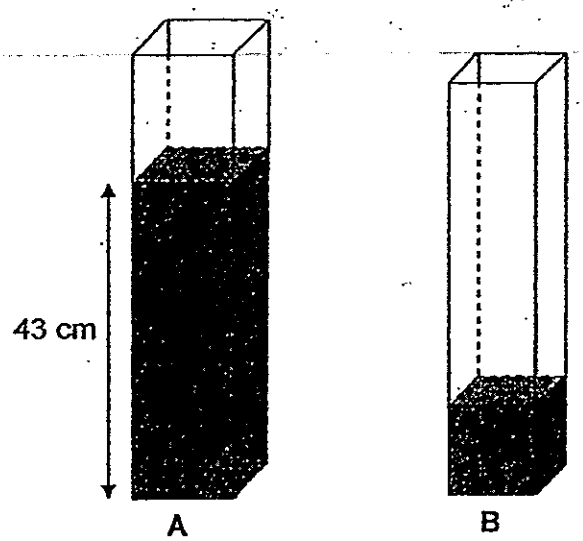


Ans:_____ [4]

(Go on to the next page)

15. A and B are two rectangular containers. The base area of A is 50 cm^2 while the base area of B is 40 cm^2. Container A and B contained some water and the height of the water level in Container A was 43 cm as shown below.

Do not write in this space.



Douglas then poured some water from Container A into Container B. After that, the height of the water level in both containers became 30 cm. What was the height of the water level in Container B at first?

Ans:_____ [4]

(Go on to the next page)

16. Frank and Benjamin each bought some sheets of paper from a bookstore. If Frank used 40 sheets of paper each day and Benjamin used 80 sheets of paper each day, Frank would have 500 sheets of paper left when Benjamin used up all his papers.
If Frank used 80 sheets of paper each day and Benjamin used 40 sheets of paper each day, Frank would have 20 sheets of paper left when Benjamin used up all his papers.
How many sheets of paper did Frank and Benjamin buy altogether?

Do not write in this space.

Ans: _____ [5]

(Go on to the next page)

17. At a sale, Mr Chua bought an electric kettle and a fan at a discount. He paid a total of \$105 for these two items. The amount paid for the electric kettle is $\frac{2}{3}$ as much as that for the fan.

Do not write in this space.

(a) How much did he pay for the fan?

(b) The total price of these two items before discount was \$127.50. Mr Chua was given a discount of 20% on the electric kettle. What was the percentage discount given for the fan?

Ans: (a) _____ [2]

(b) _____ [3]

(Go on to the next page)

18. The price of a child ticket and an adult ticket to a concert are \$3 and \$8 respectively. The amount collected from the sale of the child tickets is \$730 less than the amount from the sale of the adult tickets. The number of child tickets sold is 35 fewer than the number of adult tickets sold. How many tickets are sold altogether?

Do not write in this space.

Ans: _____ [5]

END OF PAPER.
PLEASE CHECK YOUR WORK CAREFULLY.

ANSWER SHEET

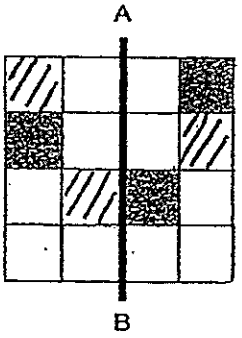
EXAM PAPER 2014
SCHOOL : CATHOLIC HIGH
PRIMARY : P6
SUBJECT : MATHEMATICS
TERM : PRELIMINARY 2

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
3	2	1	2	4	4	1	3	3	1	1	4	1	2	3

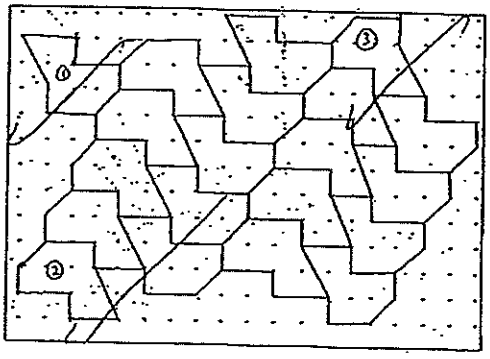
16)1409005 **17)75%** **18)49.02** **19)1,2,4,8** **20)25**

21)8 **22)$1\frac{8}{9}$ h** **23)25Π** **24)320** **25)**

26)$60 **27)**



28)40



29)8

30)82.2 cm^2

Paper 2

1)$\frac{(y-5)}{2}$

2)M,H,S

3)East

4)4 x 3 x 3 = 36
36 – 13 = 23

5)Row 5 AB ECD
Row 6 BA DEC
Row 7 AB CDE
1 set = 6 Rows
$83 \div 6 = 13$ R 5
ANS : ABECD

6)a)$55+30+70+90+80+95 = 420$
$420 \div 6 = 70$
b)$672 - 420 = 252$
$\frac{252}{672} \times 100\% = 37.5\%$

7)$56^\circ - 14^\circ = 42^\circ$
$180^\circ - 42^\circ - 42^\circ - 14^\circ = 82^\circ$
$100^\circ - 82^\circ = 18^\circ$

8)$2u = 650$
$3u = \frac{650}{2} \times 3 = 975$

9)$7 - 5 = 2$
$80 \div 2 = 40$
$40 \times 7 = 280$

10)$76 \div 2 = 38$
$36 = 6$
$38 \times 6 = 228$ cm2

11)$1u = \$15$
$5u = 15 \times 5 = 75$
$75 \div 2.5 = 30$
$30 \times 80 = 2400$

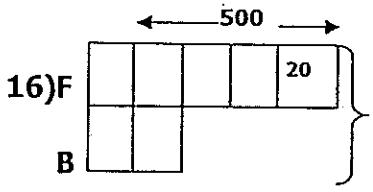
12)$80 - 65 = 15$
$480 \div 15 = 32$
$80 \times 32 = 2560$ m

13)$\frac{2}{7} = \frac{10}{35}$
$\frac{1}{5} = \frac{7}{35}$
$35 - 10 - 7 = 18$
$18u = 162$
$35u = \frac{162}{18} \times 35$
$= 315$

14)1120 – 29 – 59.2 – 2.9 = 1055
3.14 x 5.8 = 18.212
1055 ÷ 18.212 = 57.9
Ans: 57 complete revolutions

15)43 – 30 = 13
50 x 13 = 650
650 ÷ 40 = 16.25
30 – 16.25 = 13.75 cm

16)



3u = 500 – 20 = 480
6u = 480 x 2 = 960
960 + 20 = 980

17)a)5u = 105
1u = 105 ÷ 5 = 21
3u = 3 x 21 = $63
b)2u = 2 x 21 = 42
80% = 42
100% = $\frac{42}{80}$ x 100 = 52.50

127.50 – 52.50 = 75
75 – 63 = 12
$\frac{12}{75}$ x 100 = 16%

18)35 x 8 = 280
730 – 280 = 450
8 – 3 = 5
450 ÷ 5 = 90
90 + 90 + 35 = 215

Name : _____ ( )

Class : Primary 6 _____

Primary 6

2014 Preliminary Examination

Mathematics

Paper 1

Booklet A

19 August 2014

Total Time for Booklets A and B: 50 min

INSTRUCTIONS TO CANIDATES

Do not turn over this page until you are told to do so.
Follow all instructions carefully.
Answer all questions.
The use of calculators is NOT allowed.

This booklet consists of 8 printed pages including the cover page.

Questions **1** to **10** carry 1 mark each. Questions **11** to 15 carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the correct oval (1, 2, 3, or 4) on the Optical Answer Sheet.

(20 marks)

---

1. In 84 905.621, which digit is in the thousandths place?

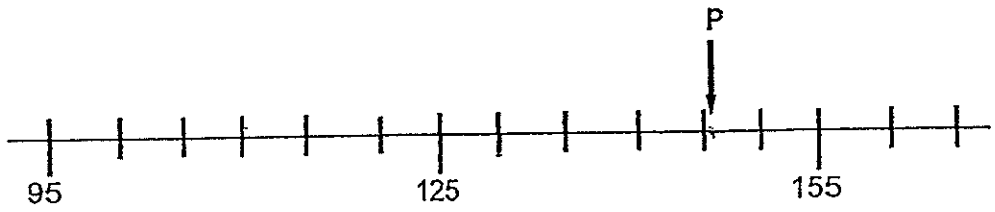
   1) 1

   2) 2

   3) 4

   4) 8

2. In the number line below, what is the best estimate for the value of P?



   1) 140

   2) 146

   3) 149

   4) 150

3. Jim's mass is w kg. His mass is kg less than Howard's. Both of them intend to gain an extra 5 kg each in 3 years' time. What will be their total mass in 3 years' time?

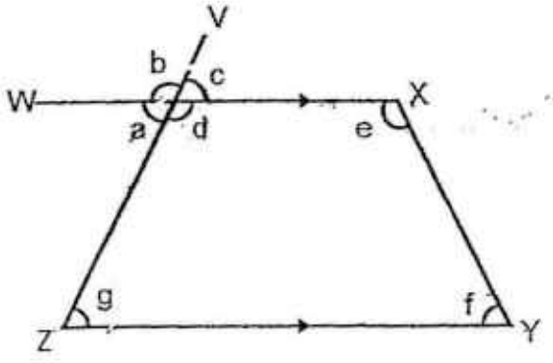
   1) $(2w + 3)$ kg

   2) $(2w + 13)$ kg

   3) $(2w + 33)$ kg

   4) $(6w + 33)$ kg

4. WX and VZ are straight lines.
Which one of the following statements about the figure is **incorrect**?



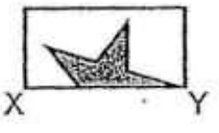
1) $\angle a = \angle c$

2) $\angle b = \angle d$

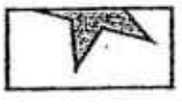
3) $\angle f + \angle g = 180°$

4) $\angle g + \angle d = 180°$

5. James folded a piece of paper into half. XY is the line of symmetry for the star drawn on the piece of paper. Which one of the following figures shows the other half of the paper?



1)

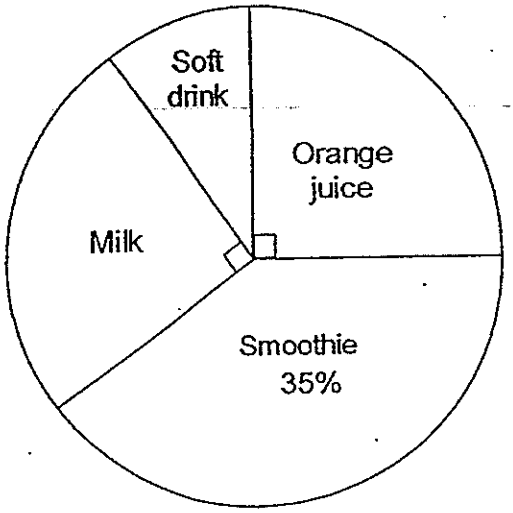


2)

3)

4)

6. The pie chart below shows the different types of drinks 160 pupils like. How many pupils like soft drink?



1) 56

2) 40

3) 30

4) 24

7. The usual price of a kettle is $40. How much will the kettle cost with a discount of 20% ?

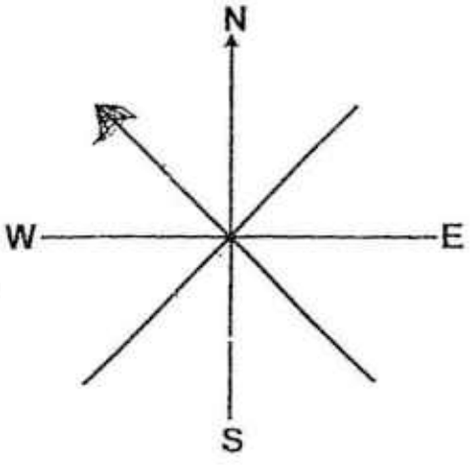
1) $8

2) $20

3) $32

4) $48

8. The figure shows an 8-point compass. Russell was facing North-West at first. He then turned 225° anti-clockwise. Which direction is he facing now?



1) North

2) South

3) East

4) West

9. Jolina has $\frac{6}{7}$ of the nuggets that Karl has. What is the ratio of the total number of nuggets they have to the number of nuggets Karl has?

1) 13 : 7

2) 13 : 6

3) 7 : 6

4) 6 : 7

10. A bus had 46 passengers. 12 passengers alighted from the bus. Express the number of passengers who have alighted as a fraction of the final number of passengers on the bus?

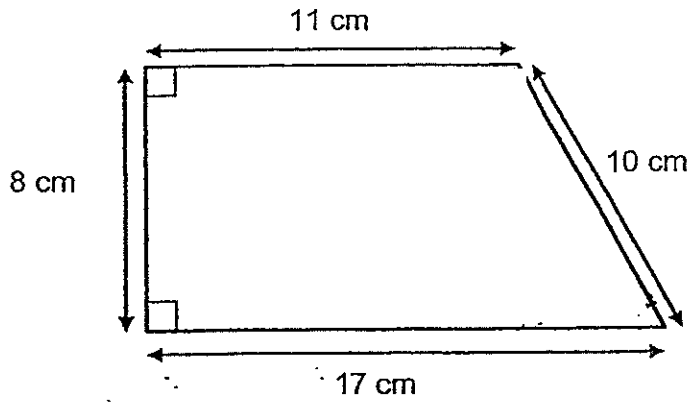
1) $\frac{23}{29}$

2) $\frac{6}{29}$

3) $\frac{6}{23}$

4) $\frac{6}{17}$

11. What is the area of the trapezium below?



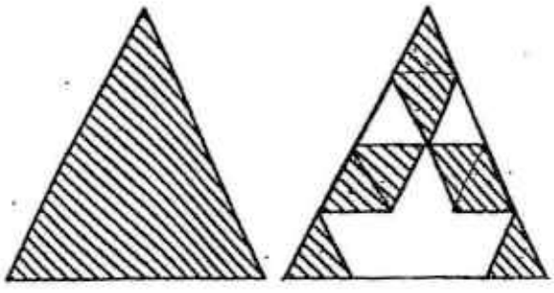
1) 46 cm^2

2) 112 cm^2

3) 118 cm^2

4) 166 cm^2

12. In the figure below, how many more smaller triangles ( ) have to be **unshaded** so that the total shaded area becomes $1\frac{3}{8}$?



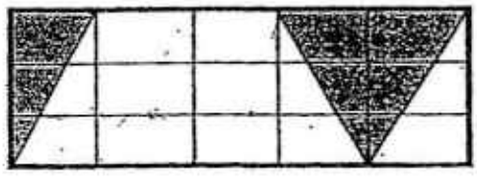
1) 2

2) 3

3) 5

4) 8

13. What percentage of the rectangle shown is shaded?



1) 10%

2) 30%

3) 33%

4) 70%

14. 5 packers can pack 15 boxes in 9 minutes. How many boxes can 1 packer pack in 54 minutes?

1) 3

2) 6

3) 18

4) 27

15. There are nine cards numbered 1 to 9 on the table. Four boys picked 2 cards each at the same time.
The following statements were made by the boys :

Alexi: The product of my numbers is 18.
Blanco: The sum of my numbers is 6.
Christopher: One of my numbers is twice the other.
Danny: The difference between my numbers is 5.

What cards were picked by Christopher?

1) 1 and 2

2) 2 and 4

3) 3 and 6

4) 4 and 8

** END OF BOOKLET A**

Name : _____ ( )

Class: Primary 6 _____

CHIJ ST NICHOLAS GIRLS' SCHOOL (PRIMARY)

Primary 6

2014 Preliminary Examination

Mathematics

Paper 1

Booklet B

19 August 2014

Booklet A	20
Booklet B	20
Total (Paper 1)	40

Total Time for Booklets A and B : 50 min

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.
Follow all instructions carefully.
Answer all questions.
The use of calculators is **NOT** allowed.

This booklet consists of 8 printed pages including the cover page.

Questions **16** to **25** carry **1** mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

Do not write in this space

16. Ping ate 4 biscuits while Lifang ate m biscuits, What was the average number of biscuits they ate?

Ans : _____

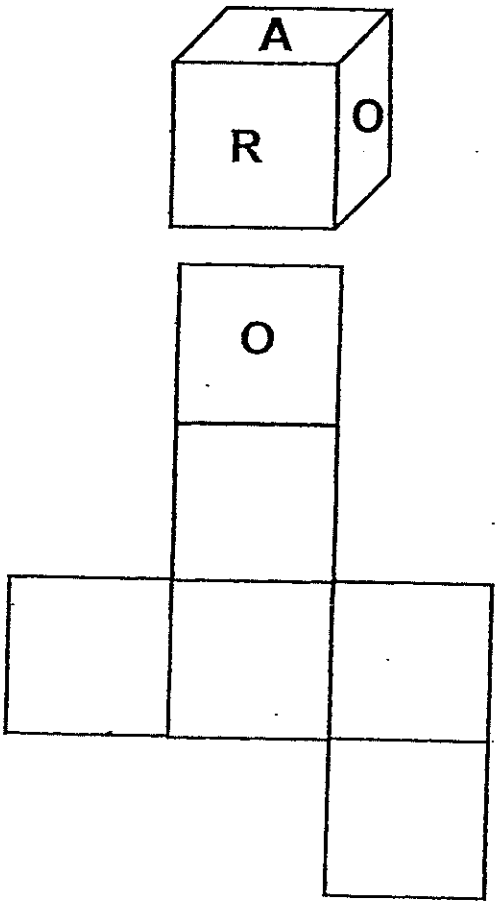
17. Find the valueof $60 \div 12 + (50-7) \times 4$

Ans : _____

18. What fraction of 9 m is 50 cm?

Ans : _____

19. Look at the figure and write the letter A and R on the net below.



20. 150 dancers were in dance studios X, Y and Z in the ratio 5 : 2 : 3. How many dancers were there in studio Z?

Ans : _____

Do not write in this space

21. 120 out of 300 participants made it to the "Singapore Got Talents" competition. What percentage of the participants did not make it to the competition?

Ans : _____%

22. The mass of a crate of sweet potatoes is 24.06 kg
Find the mass of 70 such crates of sweet potatoes.

Ans : _____ kg.

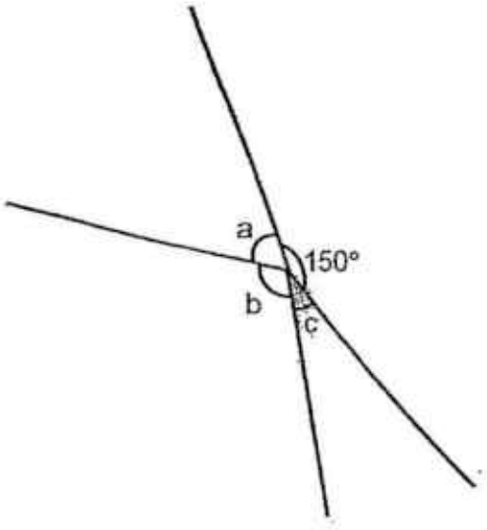
23. Laila spent 40% of her money on a skirt which cost $60. How much money did she have at first?

Ans : $_____

Do not write in this space

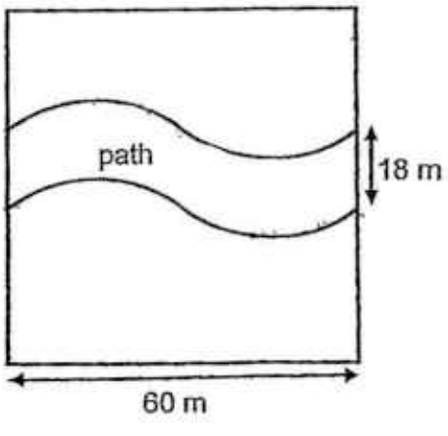
24. The figure below is not drawn to scale. The ratio of $\angle a : \angle b : \angle c$ is 2 : 4 : 1
Find $\angle c$.

Do not write in this space



Ans : _____ °

25. A 60-m square garden has a cement path 18 m wide as shown in the figure, Find the area of the cement path.



Ans : _____ m^2

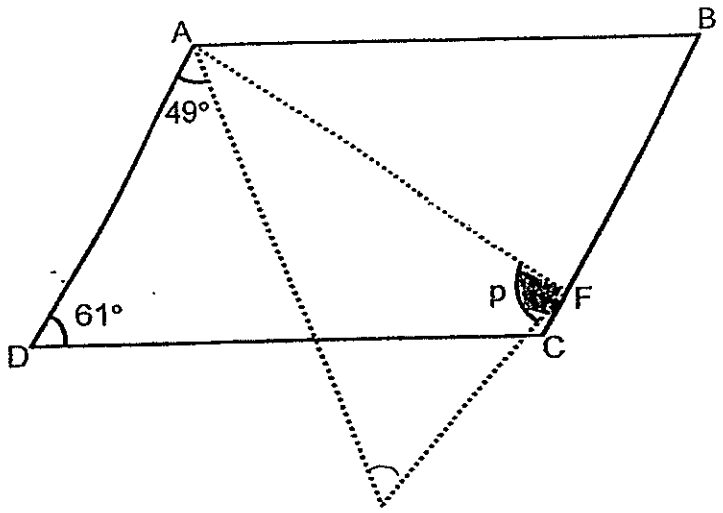
Questions **26** to **30** carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

Do not write in this space

26. Mdm Ong was less than 70 years old in 2013. In 2009, her age was a multiple of 8. In 2007, her age was a multiple of 9. How old was Mdm Ong in 2013?

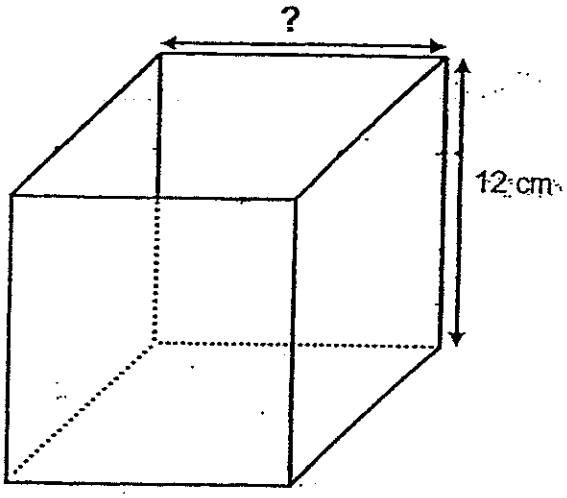
Ans : _____

27. The figure below is not drawn to scale. ABCD is a parallelogram A corner of the parallelogram is folded along AF. Find ∠p



Ans : _____ °

28. A square-based container is completely filled with 768 mℓ of water. Find the unknown side of the container.



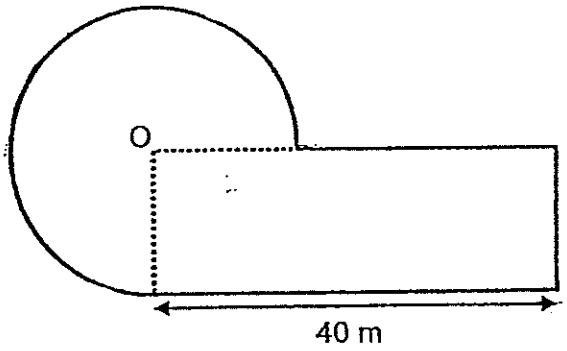
Ans : _____ cm

29. Two months ago, Jack jogged at a speed of 4 km/h for 3 hours. Now, he can jog the same distance using only 2 hours. If he jogs for 3 hours now, what is the total distance he can cover?

Ans : _____ km

Do not write in this space

30. The figure below is made up of a $\frac{3}{4}$ - circle rectangle. O is the centre of the circle and the diameter of the circle is 28 m. Find the perimeter of the figure. (Take $\pi = \frac{22}{7}$)



Ans : _____ m

Do not write in this space

END OF PAPER 1

Name : _____ ( )

Class : Primary 6 _____

CHIJ ST NICHOLAS GIRLS' SCHOOL (PRIMARY)

Primary 6

2014 Preliminary Examination

Mathematics
Paper 2

19 August 2014

Paper 1	40
Paper 2	60
Total	100

_____
Parent's / Guardian's Signature

Time : 1 hour 40 minutes

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.
Follow all instructions carefully.
Answer all questions.
The use of an approved calculator is expected, where appropriate.

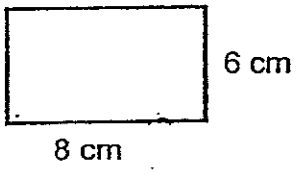
This booklet consists of 16 printed pages including the cover page.

Questions **1** to **5** carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(10 marks)

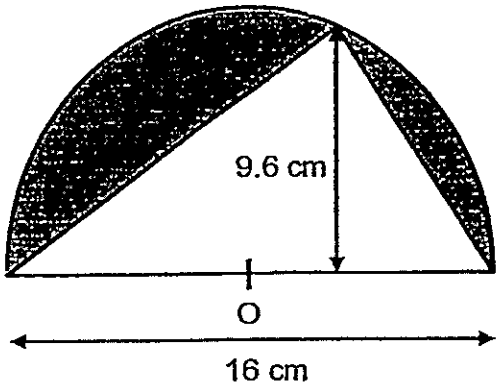
Do not write in this space

1. Tom wants to make a square with rectangular cards each measuring 8 cm by 6 cm How many such rectangular cards must he use to make the smallest possible square?



Ans : _____

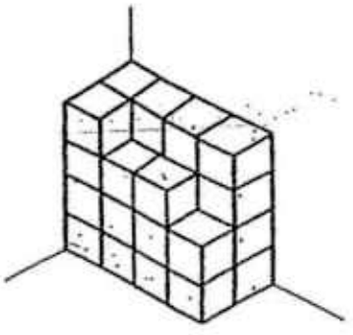
2. The figure below shows a triangle enclosed within a semicircle O is the centre of the semicircle. Find the area of the shaded part. (Take π = 3.14).



Ans : _____ cm^2

Do not write in this space

3. The figure below is made up of 2-cm cubes. What is the volume of the figure?



Ans: _____ cm^3

4. A bullet train left for Country Zoro at 07 00 The train stopped over at Country Starz for half an hour before continuing its journey to Country Zoro. It reached Country Zoro at 13 45 If the average speed of the train was 350 km/h, what was the total distance covered by the train?

Ans : _____ km

5. Keith and Mike had some chocolates in the ratio 2 : 5 When Mike gave away 40 chocolates to Keith and ate 20 chocolates himself, the ratio of Keith's chocolates to that of Mike's chocolates became 2 : 1 How many chocolates did Mike have at first?

Do not write in this space

Ans : _____

For questions **6** to **18**, show your working clearly and write your answers in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question. (50 marks)

Do not write in this space

6. There are 40 boys and girls in a team. During training, each boy runs a distance of 2 km while each girl runs 0.8 km. Given that all the boys and girls have run a total of 53.6 km how many boys are there in the team?

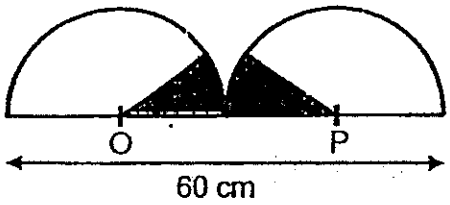
Ans : _____ [3m]

Do not write in this space

7. In a factory, the first batch of toy cars and toy bears were produced in the ratio 5 : 8 In the second batch of production, the number of toy bears produced increased by 40%. If 455 toys were produced during the first batch, find the increase in the number of toy bears produced in the second batch.

Ans : _____ [3m]

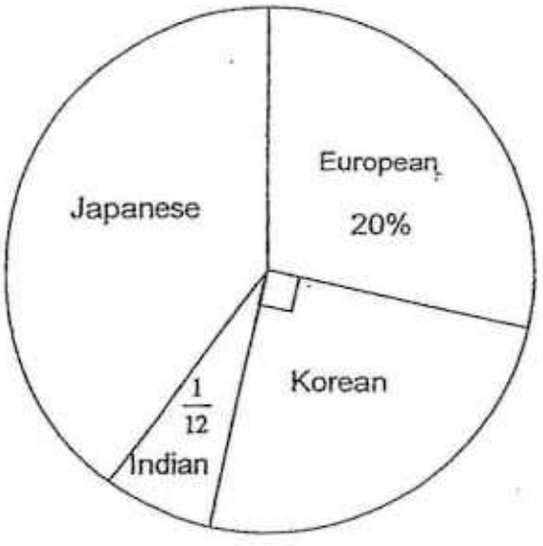
8. The figure shows two identical semicircles. O and P are the centres of the semicircles. $\frac{1}{5}$ of each semicircle is shaded. Find the total area of the shaded parts. (Take $\pi = 3.14$)



Ans _____ [3m]

9. The pie chart shows the different nationalities of tourists at the River Safari on a particular day. If there are 135 Korean tourists, how many European and Indian tourists are there altogether?

Do not write in this space



Ans : _____ [3m]

10. Maxie had 1 900 $m\ell$ more fruit juice than Nick. After Maxie gave Nick 500 $m\ell$ of fruit juice, the ratio of Maxie's juice to Nick's juice became 5 : 2. How much fruit juice did Maxie have at first?

Do not write in this space

Ans : _____ [3m]

11. Shi Mei was selling some bottles of yogurt drinks. $\frac{2}{5}$ of the bottles were of strawberry flavour and the rest were chocolate flavour. After selling $\frac{2}{3}$ of the strawberry flavour yogurt drinks and 312 bottles of chocolate flavour yogurt drinks, she had $\frac{3}{10}$ of the original number of bottles of yogurt drinks left. How many bottles of yogurt drinks were sold altogether?

Do not write in this space

Ans: _____ [4]

12. Tashaki has \$67.50 in the form of 10¢, 20¢ and 50¢ coins. The number of 20-¢ coins is $\frac{1}{4}$ of the number of 50-¢ coins and twice as many as the number of 10-¢ coins. What is the value of the 50-¢ coins that Tashaki has?

Do not write in this space

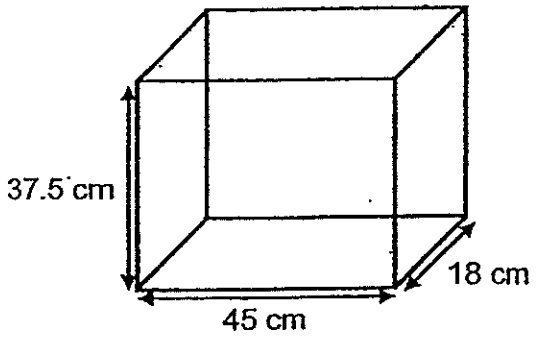
Ans : _____ [4]

13. After hiking for 30 km, Martin took a break before he continued hiking $\frac{1}{3}$ of the remaining distance He then realised that he still had $\frac{1}{4}$ of the total distance not completed. If Martin's average speed was 6 km/h, how much time did he take to complete the entire hike?

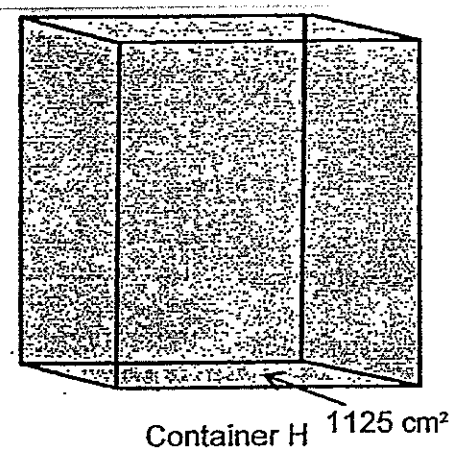
Do not write in this space

Ans:_____ [4]

14. An empty Container G measures 45 cm by 18 cm by 37.5 cm. Container H with a base area of 1125 cm² was completely filled with water. Ronald poured $\frac{5}{11}$ of the water from container H into container G. The water filled $\frac{2}{3}$ of Container G. What was the height Container H ?



Container G



Container H

Do not write in this space

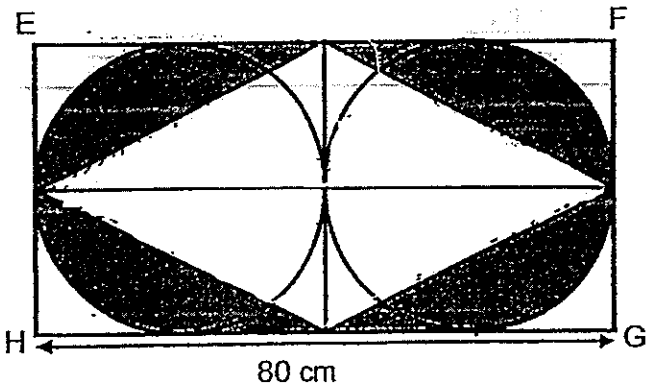
Ans : _____ [4m]

15. In a toy shop, 46% of the toys are stuffed toys. $\frac{5}{9}$ of the remaining toys are toy trains and the rest are toy cars. There are 280 stuffed toys and toy cars. How many toy cars are there in the shop?

Do not write in this space

Ans : _____ [4m]

16. The figure below shows 2 identical circles enclosed in a rectangle EFGH. Find the area of the shaded parts. (Take $\pi = 3.14$)



Do not write in this space

Ans : _____ [5m]

17. Randy and Owen left Town W for Town X at the same time. When Randy reached Town X in 4 hours, Owen had only completed $\frac{3}{8}$ of the distance between the two towns. Owen's speed was 30 km/h slower than Randy. What was Randy's speed?

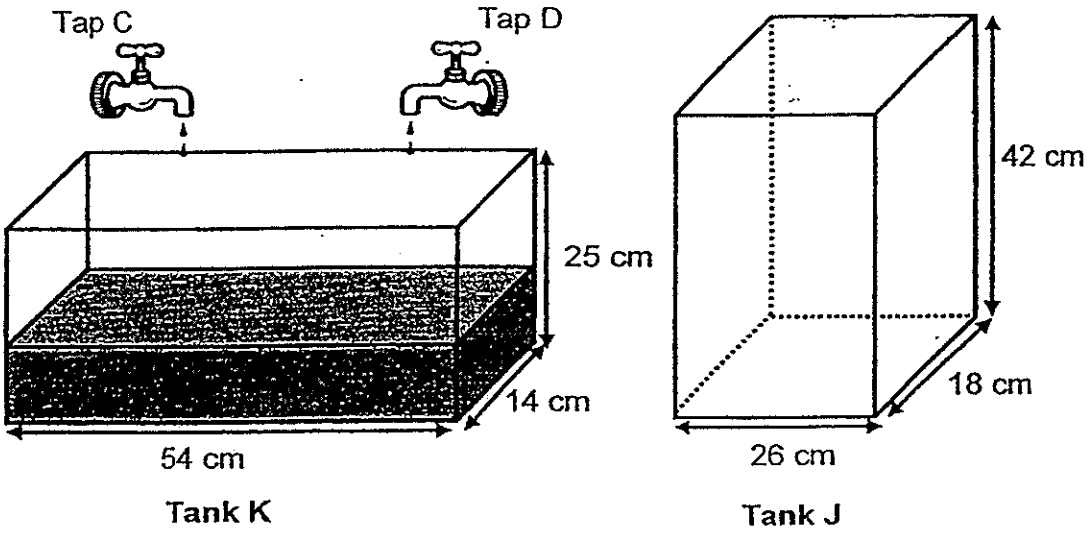
Do not write in this space

Ans : _____ [5m]

18. Tank K measuring 54 cm by 14 cm by 25 cm contains 4.7 ℓ of water. It is being filled with water flowing from Tap C at 0.9 ℓ /min and Tap D at 995 $m\ell$ /min.

(a) Both taps are turned on at the same time. How long does it take to fill up tank K till it is 75% full?

(b) Some water is then poured from tank K to tank J without spilling. The heights of the water level in both the tanks are now equal. Find the height of the water level in tank J. Leave your answer correct to 2 decimal places.



Ans : (a) _____ [3m]

(b) _____ [2m]

Do not write in this space

** END OF PAPER **

EXAM PAPERS 2014

SCHOOL: CHIJ ST NICHOLAS GIRLS' SCHOOL (PRIMARY)
SUBJECT: MATHEMATICS
LEVEL: PRIMARY 6
TERM: PRELIMINARY EXAM

PAPER 1 BOOKLET A

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
1	2	2	3	4	4	3	3	1	4
Q11	Q12	Q13	Q14	Q15					
2	1	2	3	4					

BOOKLET B

Q16 (M+4/2)
Q17 177
Q18 1/18
Q19

Q20 45
Q21 60
Q22 1684.2
Q23 150
Q24 30
Q25 1080
Q26 60
Q27 84
Q28 8
Q29 18
Q30 146

PAPER 2

Q1 Common multiples of 18
6:6,12,24,30
8:8,16,24,32
24÷8=3
24÷6=4
4x3=12
He must use 12 cards to make the smallest square.

Q2 Triangle → ½x16x9.6= 76.8
16÷2=8
3.14x8x8x½=100.48

100.48-76.8=23.68

The area of the shaded part is 23.68cm².

Q3

4x4x2=32

32-4=28

2x2x2=8

28x8=224

The volume of the figure is 224cm³.

Q4

45.30=15

6h15min=6¼h

6¼x350=2187½=2187.5

The distance covered was 2187.5km.

Q5

Before	After
K : M	K : M
2 : 5	2 : 1
(+40)(-40)	4 : 2
(-20)	

7u- 6u= 1u

1u→20

5u→20x5=100

Mike had 100 chocolates at first.

Q6

2km=2000m

0.8km=800m

53.6km=53600m

40x800=32000

53600-32000=21600

2000-800=1200

21600÷1200=18

There were 18 boys.

Q7

C : B

5 : 8

50: 80

40/100x80=32

50+80=130

1u→455÷130=3.5

32u→3.5x32=112

The increase was 112.

Q8

D→60÷2=30

r→30÷2=15

3.14x15x15=706.5

Total→10u

shaded→2u

706.5÷10=70.65

70.65x2=141.3

The area of the shaded parts is 141.3cm².

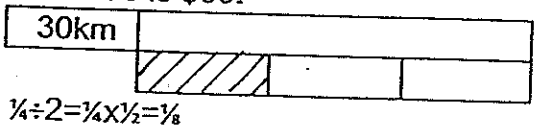
Q9 20%=$\frac{1}{5}$=12/60
1/12=5/60
$\frac{1}{4}$=15/60
15u→135
1u→135÷15=9
E+I→5u+12u=17u
17u→9x17=153
There were 153 European and Indian tourists altogether.

Q10 500+500=1000
5u-2u=3u
1900-1000=900
900→3u
1u→900÷3=300
5u→300x5=1500
1500+500=2000
Maxie had 2000ml of fruit juice at first.

Q11 Total→ 1-3/10=7/10
$\frac{2}{3}$x4/10=4/15→sold
7/10-4/15=13/30
312÷13=24
Total→24x30=720
720÷10=72
72x7=504
504 bottles were sold altogether.

Q12 10¢x1=10¢
20¢x2=40¢
50¢x8=$4
1 set→$4+40¢+10¢=$4.50
$67.50÷$4.50=15
15x8=120
120x40.50=$60
It's value is $60.

Q13

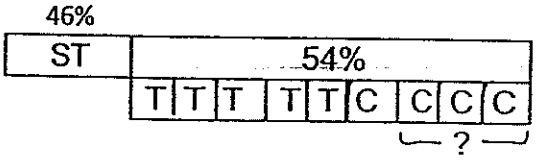


$\frac{1}{4}$÷2=$\frac{1}{4}$x$\frac{1}{2}$=$\frac{1}{8}$
$\frac{1}{8}$x3=$\frac{3}{8}$
1-$\frac{3}{8}$=$\frac{5}{8}$
5u→30km
1u→30÷5=6
8u→6x8=48(Total Distance)
48÷6=8
He took 8 hours to complete the whole hike.

Q14 $\frac{2}{3}$x37.5=25
25x45x18=20250(5u of H)

20250÷5=4050
(H)Total→4050x11=44550
44550÷1125=39.6
Its height is 39.6cm.

Q15



T+C→54%=27/50
1-5/9=4/9
car→4/9x27/50=6/25
ST→46%=23/50
23/50+6/25=7/10
7u→280
1u→280÷7=40
10u(Total)→40x10=400
6/25x400=96
There were 96 toy cars in the shop.

Q16

D→80÷2=40
r→40÷2=20
◯→3.14x20x20=1256
□ →40x80=3200
1256x2=2512
8x →3200-2512=688
Δ →688÷8=86
Δ →½x20x40=800
B→800x2=1600
4A→86x4=344
unshaded : 1600+344=1944
3200-1944=1256
Its area is 1256cm².

Q17

1-⅜=⅝
30x4=120
120→⅝
⅛→120÷5=24
⅜→24x8=192(total distance)
192÷4=48
Randy's speed was 48km/h.

Q18

a) Tank K→54x14x25=18900
18900x75%=14175
14175-4700=9475
900+995=1895
9475÷1895=5
It takes 5 minutes to fill 75%of it.

b) $54 \times 14 = 756$

$26 \times 18 = 468$

$48 + 756 = 1224$

$14175 \div 1224 \approx 11.58088$

≈ 11.58

Their height is about 11.58cm.

HENRY PARK PRIMARY SCHOOL
2014 PRELIMINARY EXAMINATION
MATHEMATICS
PRIMARY 6

PAPER 1
(BOOKLET A)

Name: _____ ( )

Parent's Signature

Class: Primary 6_____

_____

Marks:

Paper 1	Booklet A	20
	Booklet B	20
Paper 2		60
Total		100

Total Time for Booklets A and B: 50 min

Do not turn over this page until you are told to do so.
Follow all instructions carefully.
Answer all questions.
Shade your answers in the Optical Answer Sheet (OAS) provided.
You are not allowed to use a calculator.

Booklet A:
Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each.
For each of the questions, four options are given. One of them is the correct answer. Choose the correct answer (1, 2, 3 or 4). Shade the correct oval on the Optical Answer Sheet provided.

(20 marks)

1. Which of the following numbers is the largest?

(1) 0.097

(2) 0.103

(3) 0.24

(4) 0.7

2. What is the value of $5 \div \frac{5}{12}$?

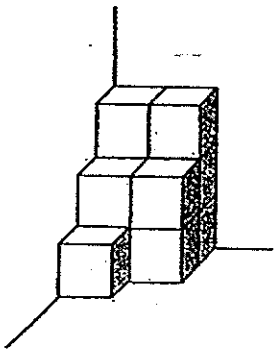
(1) $5 \times \frac{5}{12}$

(2) $\frac{1}{5} \times \frac{5}{12}$

(3) $5 \times \frac{12}{5}$

(4) $\frac{1}{5} \times \frac{12}{5}$

3. The figure shows a solid made up of identical cubes. The side of each cube is 2 cm. Find the volume of the solid.



(1) 44 cm^3
(2) 64 cm^3
(3) 68 cm^3
(4) 88 cm^3

4. The volume of a cube is 64 m^3. What is the area of one of its faces?

(1) 32 m^2
(2) 16 m^2
(3) 8 m^2
(4) 4 m^2

5. The table below shows the scores obtained by 3 players in a computer game.

Name of players	Score
Ali	88
Bing Chong	70
Peter	???

The average score of the 3 players was 90. What was Peter's score?

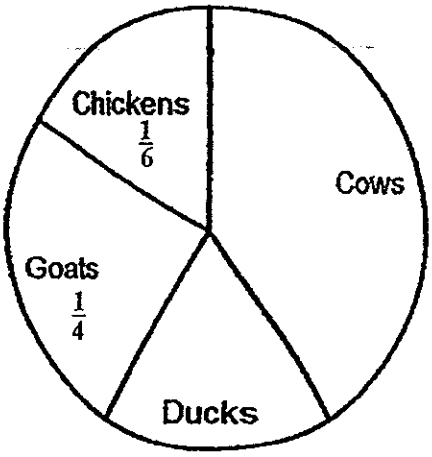
(1) 112

(2) 122

(3) 192

(4) 212

6. The pie chart below shows the number of different types of animals in a farm. There was an equal number of chickens and ducks. What fraction of the animals in the farm were cows?



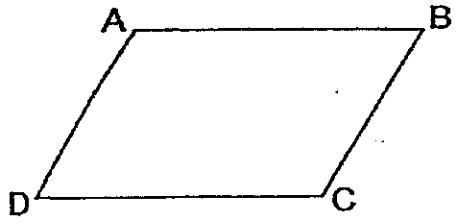
(1) $\frac{1}{3}$

(2) $\frac{5}{12}$

(3) $\frac{7}{12}$

(4) $\frac{2}{3}$

7 The figure below shows a parallelogram.



Which of the following statements is <u>definitely</u> true?

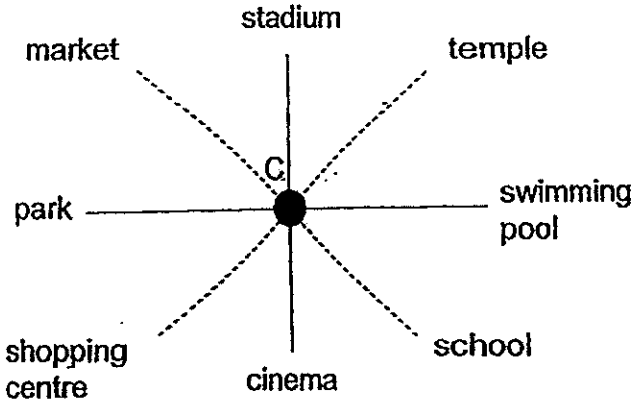
(1) $\angle CDA = \angle DAB$

(2) $\angle BCD + \angle CDA = 180°$

(3) AB is parallel to DA.

(4) AB is perpendicular to BC.

8 In the figure, Caleb is standing at the point marked C. He is facing the market. What will he face when he turns 135° clockwise?



(1) cinema

(2) park

(3) stadium

(4) swimming pool

9. Ben, Donald and Frank shared \$800 in the ratio 2 : 5 : 3. Donald spent \$150 of his share of money. How much money had he left?

(1) \$240

(2) \$250

(3) \$350

(4) \$400

10. Simplify $7p - 4 + 5p + 9$.

(1) $2p + 5$

(2) $2p - 5$

(3) $12p + 5$

(4) $12p + 13$

11. Selina has 3 more twenty-cent coins than fifty-cent coins. The total value of all her coins is \$6.20. How many twenty-cent coins does she have?

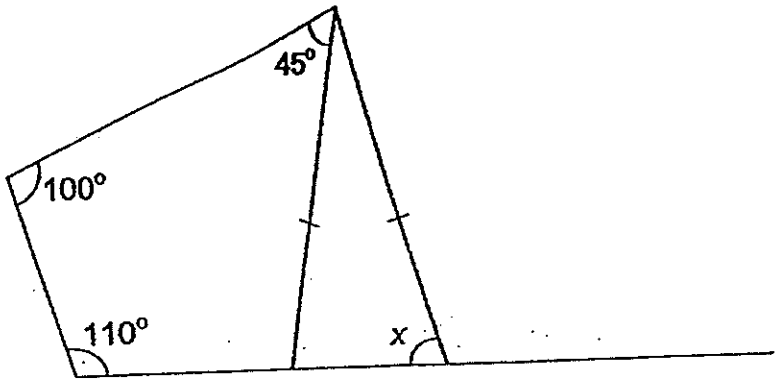
(1) 11

(2) 8

(3) 7

(4) 4

12. In the diagram below, find $\angle x$.



(1) 30°

(2) 75°

(3) 85°

(4) 105°

13. The table shows the cost of photocopying.

Number of pages	Cost per page Black and white	Cost per page Colour
First 20 pages	6 ¢	8 ¢
Subsequent pages	3 ¢	5 ¢

How much will Mr Chong have to pay to photocopy 30 pages in black and white and 15 pages in colour?

(1) \$ 2.70

(2) \$ 3.00

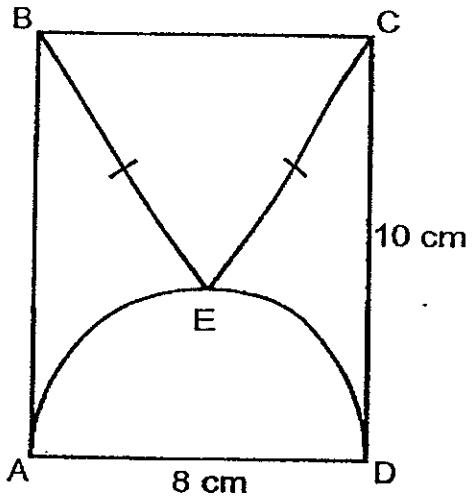
(3) \$ 3.30

(4) \$ 3.90

14. Karen and Lynn shared the total cost of a present. Karen paid \$10 more than $\frac{5}{8}$ of what Lynn paid. If Lynn paid \$14 more than Karen, what was the cost of the present?

(1) \$24
(2) \$64
(3) \$104
(4) \$114

15. The figure shows an isosceles triangle, BCE, and a semi-circle drawn inside a rectangle, ABCD. Find the area of triangle BCE.



(1) 20 cm^2
(2) 24 cm^2
(3) 32 cm^2
(4) 40 cm^2

(Go on to Booklet B)

HENRY PARK PRIMARY SCHOOL
2014 PRELIMINARY EXAMINATION
MATHEMATICS
PRIMARY 6

PAPER 1
(BOOKLET B)

Name: _____ ( )

Class: Primary 6_____

20

Total Time for Booklets A and B: 50 min

Do not turn over this page until you are told to do so.

Follow all instructions carefully.

Answer all questions.

Write your answers in this booklet.

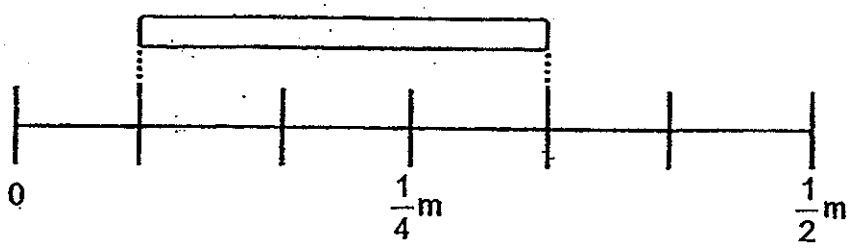
You are **not** allowed to use a calculator.

Booklet B:
Questions 16 to 25 carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(10 marks)

Do not write in this space

16. What is the length of the rod in the figure? Give your answer in its simplest form.

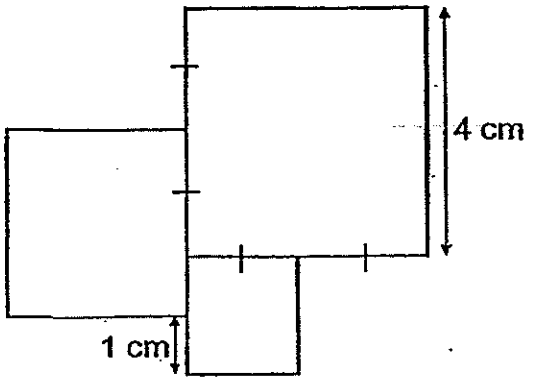


Ans: _____ m

17. Find the value of $8 + (24 - 18 \div 6) \div 7$.

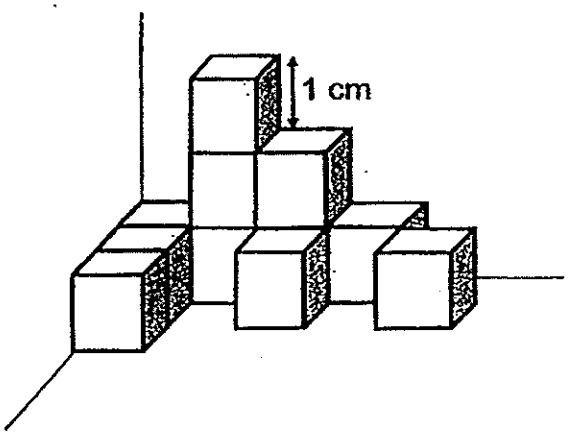
Ans: _____

18. The figure below is made up of 3 squares. Find the perimeter of the figure.



Ans: _____ cm

19. The solid below is made up of 1-cm cubes. How many more of such cubes are needed to form a solid with a volume of 20 cm^3?

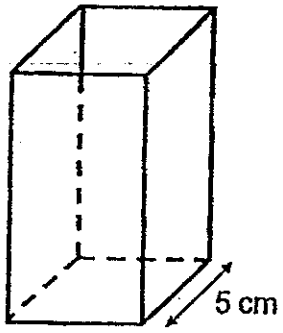


Ans: _____

Do not write in this space

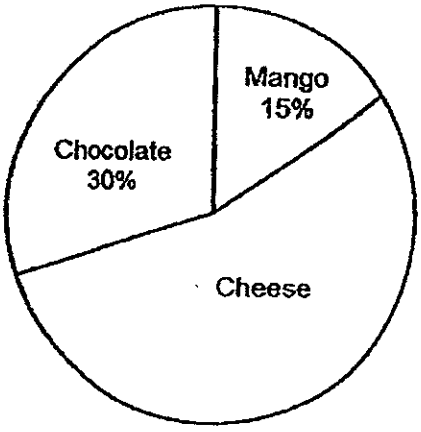
20. The figure shows a container with a square base and a height of 15 cm. Find the volume of the container.

Do not write in this space



Ans: _____ cm^3

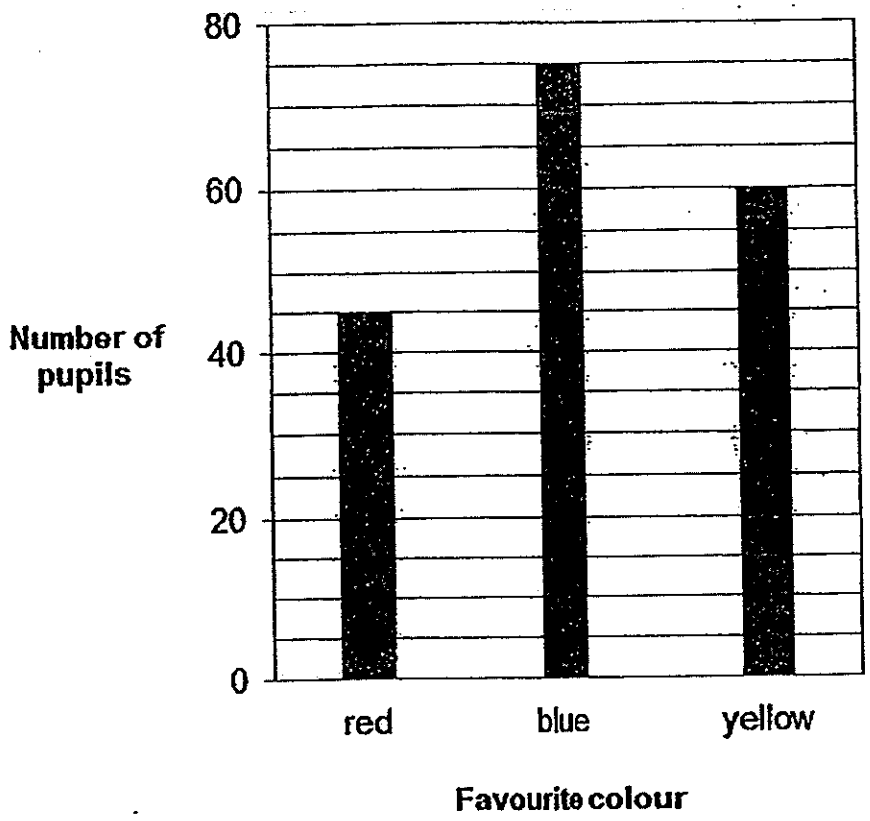
21. The pie chart below shows the number of different types of cakes sold at a bakery. What is the ratio of the number of mango cakes sold to the number of cheese cakes sold? Give your answer in its simplest form.



Ans: _____

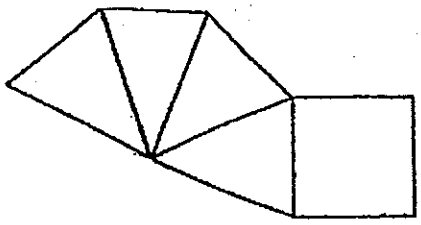
22. 180 pupils were asked to choose their favourite colour. The bar graph below shows the number of pupils who chose each of the colours.

What percentage of the pupils chose red as their favourite colour?



Ans: _____ %

23. Name the solid figure formed by the net below.

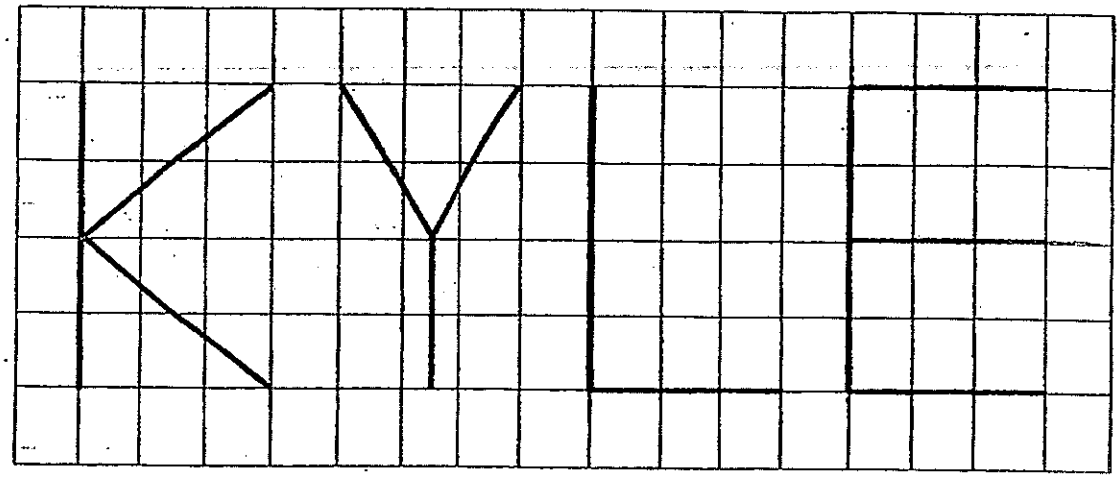


Ans: _____

Do not write in this space

24. In the diagram below, the letters K, Y, L and E are drawn on a square grid.

Do not write in this space



List all the letters that have a line of symmetry?

Ans: _____

25. John's mass was 48 kg at the beginning of the year. He lost 6 kg at the end of the year. What was the percentage decrease in his mass that year?

Ans: _____ %

Questions 26 to 30 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

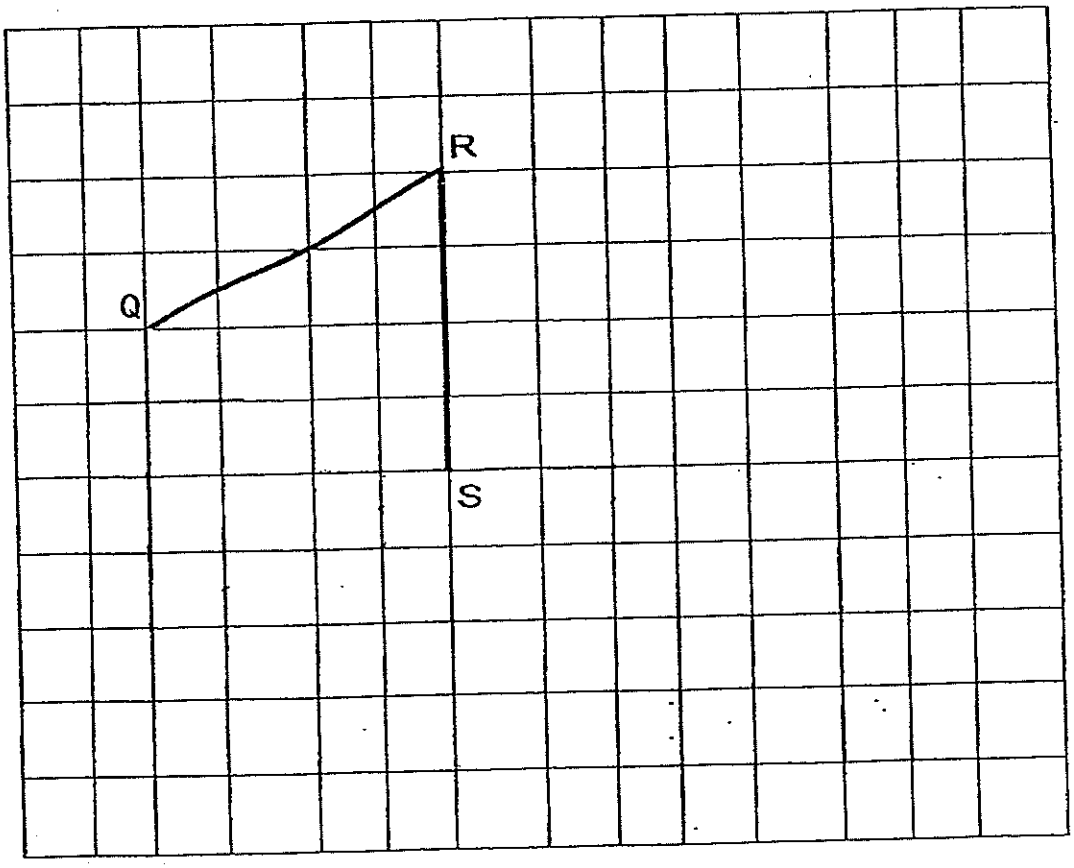
(10 marks)

Do not write in this space

26. In the square grid below, two sides of a parallelogram PQRS have been drawn.

(a) Complete the drawing of the parallelogram PQRS.

(b) RS also forms one side of a triangle RST in which ∠RST is a right angle and the length of RS is twice the length of ST. Complete the drawing of triangle RST.



Do not write in this space

27. Mei Ling spent $\frac{1}{6}$ of her savings on a T-shirt and $\frac{3}{10}$ of the remainder on a skirt. She had \$63 left. What was the total amount she spent on the T-shirt and skirt?

Ans: \$ _____

28. Jack could either buy 25 pens or 10 files with his money. He decided to spend all his money on both pens and files. Given that he bought 8 files, how many pens did he buy?

Ans: _____

29. A rectangular tank measures 60 cm by 50 cm by 30 cm. It contains 20 litres of water. How many more litres of water would be needed to fill the tank to $\frac{3}{4}$ of its height?

Do not write in this space

Ans: _____ litres

30. At present, Peter's age is $\frac{3}{7}$ of Kelly's age. In 10 years' time, the ratio of Peter's age to Kelly's age will be 11 : 19. What is Peter's present age?

Ans: _____ years

End of Paper

HENRY PARK PRIMARY SCHOOL
2014 PRELIMINARY EXAMINATION
MATHEMATICS
PRIMARY 6

PAPER 2

Name: _____ ( )

Class: Primary 6_____

60

Time for Paper 2: 1 h 40 min

Do not turn over this page until you are told to do so.

Follow all instructions carefully.

Answer all questions.

Show your working clearly as marks are awarded for correct working.

Write your answers in this booklet.

You are allowed to use a calculator.

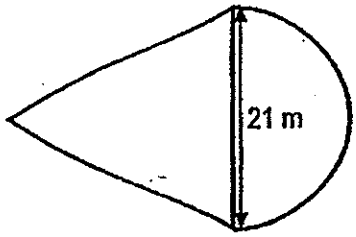
Questions 1 to 5 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the space provided. For questions which require units, give your answers in the units stated.

(10 marks)

---

1. The figure below is made up of an equilateral triangle and a semi-circle of diameter 21 m. Find the perimeter of the figure. (Take $\pi = \frac{22}{7}$)

Do not write in this space



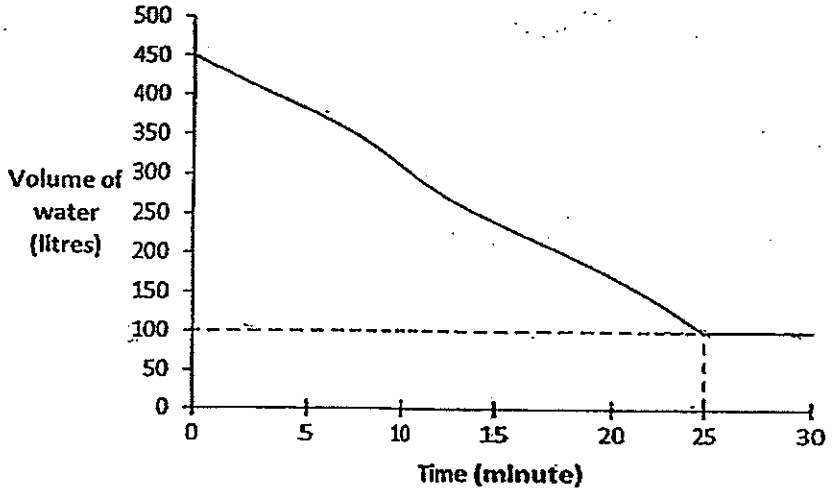
Ans: _____ m

2. The length of Rod A is $\frac{1}{2}$ of the length of Rod B and the length of Rod B is $\frac{1}{3}$ of the length of Rod C and $\frac{1}{4}$ of the length of Rod D. What fraction of the total length of the 4 rods is C?

Ans: _____

3. A tank was completely filled with water. The water was drained out of the tank at a constant rate for 25 minutes. The graph below shows the volume of water in the tank over a period of 30 minutes.

Do not write in this space



(a) What fraction of the tank was filled with water at the end of 25 minutes? Express your answer in the simplest form.

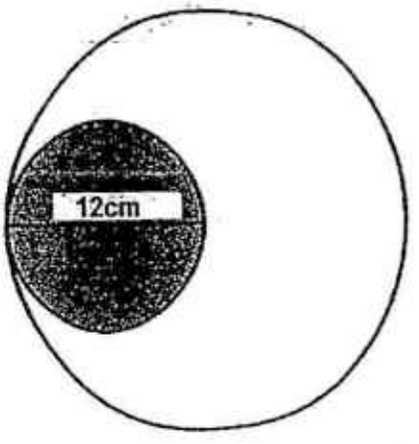
(b) How many litres of water was drained out of the tank in 1 minute?

Ans: (a)_____

(b)_____ litres

4. The figure below shows a small circle of diameter 12 cm inside a big circle of radius 12 cm. Find the area of the unshaded part of the big circle. Leave your answer in terms of π.

Do not write in this space



Ans: _____ cm^2

5. Jun Kee had some bags of nails. The average number of nails in each bag was 146. After Jun Kee added another bag containing 128 nails, the average number of nails in each bag became 143. How many bags of nails were there after the new bag was added?

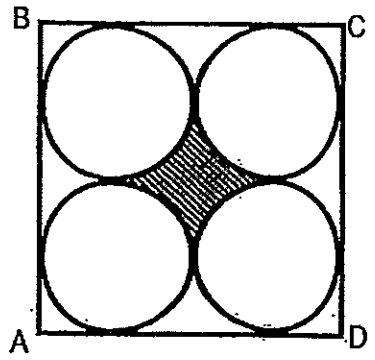
Ans: _____

For questions 6 to 18, show your working clearly in the space provided for each question and write your answers in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question.

(50 marks)

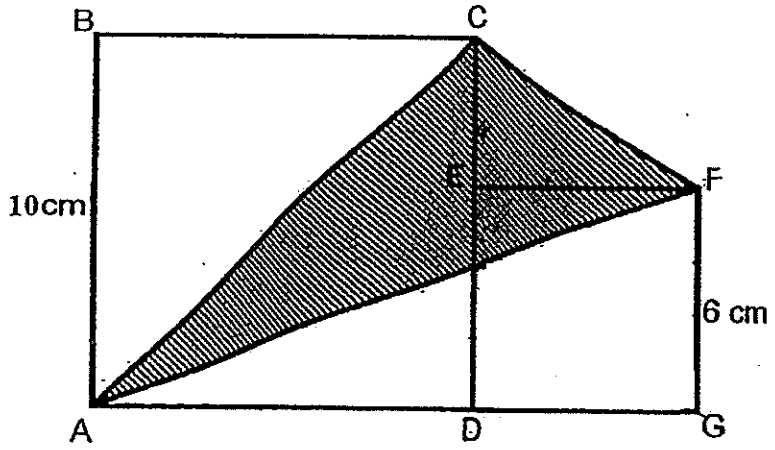
Do not write in this space

6. The figure shows 4 identical circles in a square, ABCD. The area of the square is 64 cm^2. Find the area of the shaded part. (Take $\pi = 3.14$)



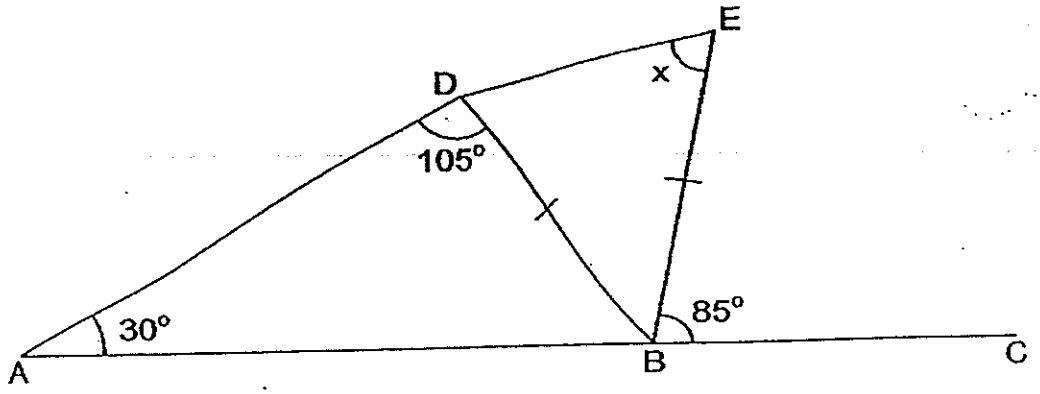
Ans: _____ [3]

7. In the figure, ABCD and DEFG are squares. Find the area of the shaded triangle ACF.



Ans: _____ [4]

8. In the figure below, ABC is a straight line and BDE is an isosceles triangle. Find $\angle x$.



Ans: _____ [3]

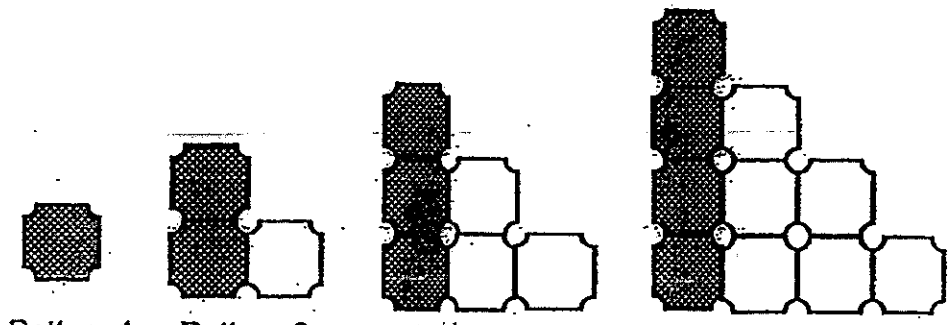
9. Mark and Jie Ming started walking from the same spot in opposite directions along a straight path. They walked for 30 minutes. At the end of the walk, they were 5 km apart. Mark's average speed was 4 km/h. What was Jie Ming's average speed in km/h?

Ans: _____ [4]

Do not write in this space

10. Look at the pattern below.

Do not write in this space



Pattern 1 Pattern 2 Pattern 3 Pattern 4

(a) Complete the table below by filling in the blank.

Pattern Number	No. of unshaded tiles	No. of shaded tiles	Total No. of tiles
1	0	1	1
2	1	2	3
3	3	3	6
4	6	4	(a) ___?___

(b) How many unshaded tiles will there be in Pattern number 15?

Ans: (a) _____ [1]

(b) _____ [2]

11. The length of a rectangle is increased by 25% and its breadth is increased by 30%. What is the percentage increase in its area?

Do not write in this space

Ans: _____ [4]

12. Ali is k years old. Bala is four times as old as Ali and Cai Yun is 6 years younger than Bala.

(a) Express Cai Yun's age in terms of k.

(b) Ali is 10 years old now. In how many years' time will Cai Yun be three times as old as Ali?

Ans: (a)_____ [1]

(b)_____ [3]

13. There are two neon lights in a shop. The red light flashes every 6 minutes and the yellow light flashes every 9 minutes. Both neon lights flashed together when Annette walked into the shop.

Including the flashes Annette saw when she first stepped into the shop, how many times will she see the 2 neon lights flash together if she stays in the shop for 1 hour?

Do not write in this space

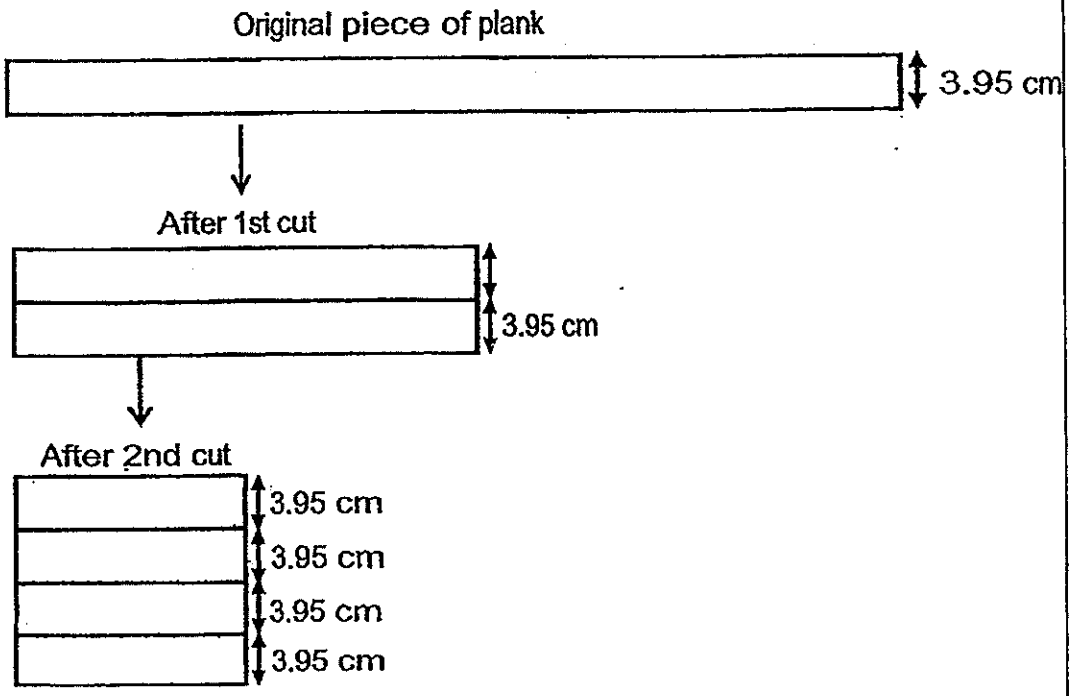
Ans: _____ [3]

14 The thickness of one piece of plank is 3.95 cm. It is cut into halves and the two pieces are placed on top of each other. These 2 pieces are halved again and placed on top of the other two pieces.

Do not write in this space

(a) Repeating the process, how many pieces of planks are there after a total of 6 cuts?

(b) What will be the height of the final pile of the pieces of planks after a total of 6 cuts? Round off your answer to the nearest m.



Ans: (a) _____ [1]

(b) _____ [2]

15. Patricia baked 120 more cupcakes than muffins. She sold $\frac{5}{6}$ of the cupcakes and $\frac{1}{5}$ of muffins. In the end she had 75 more muffins than cupcakes left. How many cupcakes and muffins did she bake at first?

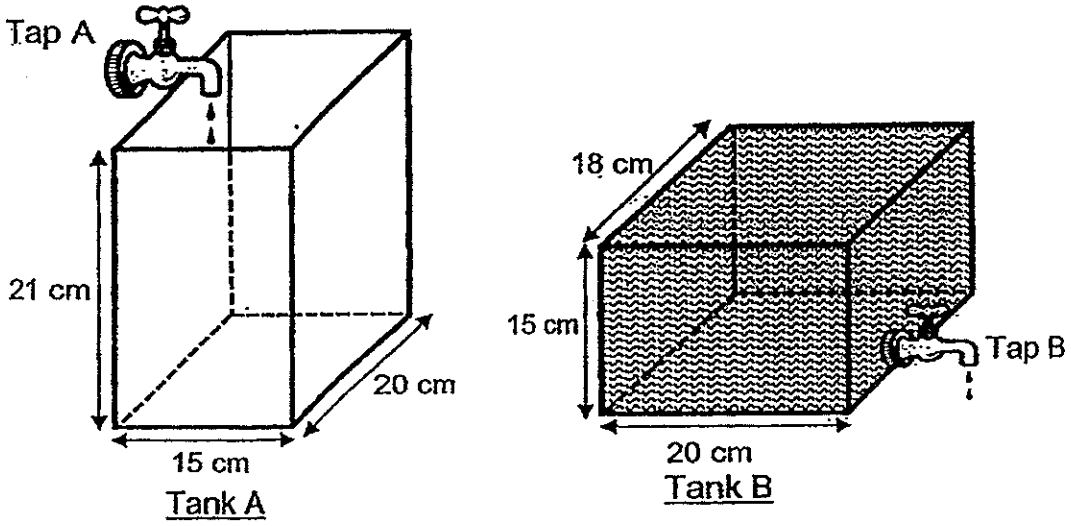
Do not write in this space

Ans: _____ [5]

16. The diagram below shows 2 tanks, Tank A and Tank B of different dimensions. Tank A is completely empty while Tank B is filled with water to the brim.

Water from Tap A flows at a rate of 1.2 litres per minute while water drains from Tap B at a rate of 0.72 litres per minute. Both taps are turned on at the same time. After some time, the heights of the water level in both tanks became the same. (1 litre = 1000 cm^3)

(a) Find the time taken for the heights of the water level to be the same in both tanks.
(b) Find the height of the water level at that point of time.



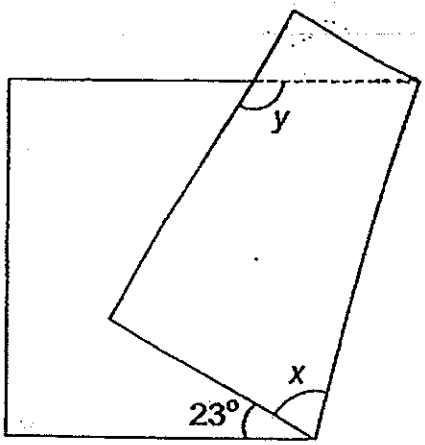
Do not write in this space

Ans: (a) _____ [3]

(b) _____ [2]

17. A rectangular piece of paper was folded as shown below.

(a) Find $\angle x$.
(b) Find $\angle y$.



Do not write in this space

Ans: (a) _____ [1]

(b) _____ [3]

18. Sally bought some chocolates and gave half of them to Mabel. Sally also bought some lollipops and gave half of them to Mabel. Mabel ate 7 lollipops and Sally ate 16 chocolates.

After that, the number of lollipops and chocolates Mabel had were in the ratio 1 : 8 and the number of lollipops and chocolates Sally had were in the ratio 1 : 5. How many lollipops did Sally buy at first?

Do not write in this space

Ans: _____ [5]

-END OF PAPER-

Setters: Mrs Norah Idil, Mrs Priscilla Heng, Mrs Josephine Lai, Ms Yew Hew Mei, Mr Bernard Li

ANSWER SHEET

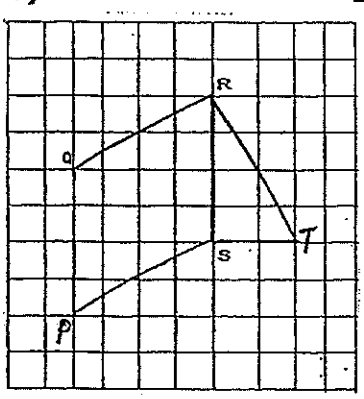
EXAM PAPER 2014
SCHOOL : HENRY PARK
PRIMARY : P6
SUBJECT : MATHEMATICS
TERM : SA2

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
4	3	4	2	1	2	2	4	2	3	1	2	1	4	2

16) ¼ **17)**11 **18)**26 cm **19)**9 **20)**375

21)3 : 11 **22)**25% **23)**pyramid **24)**KYE **25)**12.5

26)



27)7u = 63
5u = 63/7 x 5
=$454

28)10 – 8 = 2
10 F = 25p
2F = 25/10 x 2 = 5 pens

29)60 x 50 x 30 = 90000 cm3
¾ x 90 = 67.5
67.5 – 20 = 47.5

30)19p – 11p = 8p
7u – 3u = 4u
4u = 8p
3u = 8/4 x 3 = 6p
11p = 3u + 10
11p = 6p + 10
5p = 10
1p = 2
3u = 6 x 2 = 12years

Paper 2

1)21 x 22/7 = 66
66÷2 = 33
33 + 21 + 21 = 75

2)1 + 2 + 6 + 8 = 17
ANS: 6/17

3)a)$\frac{100}{450} = \frac{2}{9}$

b)450 – 100 = 350
350÷25 = 14

4)Π x 12 x 12 = 144Π
Π x 6 x 6 = 36Π
144Π - 36Π = 108Π

5)146 – 142 = 3
146 – 128 = 18
18÷3 = 6

6)$\sqrt{64} = 8$
8÷2 = 4
4 x 4 = 16
3.14 x 2 x 2 = 12.56
16 – 12.56 = 3.44cm2

7)½ x 10 x 10 = 50
6 x 6 = 36
½ x 6 x 4 =12
½ x 16 x 6 = 48
50 + 36 + 12 – 48 = 50 cm2

8)180 – 105 – 30 = 45
180 – 85 – 45 = 50
180 – 50 = 130
130÷2 = 65°

9)4 x 30/60 = 2
5 – 2 = 3
3÷½ = 6km/h

10)a)6 + 4 = 10
b)1+2+3....+13+14
=15 x 7 = 105

11)1.25 x 1.3 = 1.625
1.625 – 1 = 0.625
0.625 x 100 = 62.5%

12)a)A = K
B = 4K
C =(4K – 6)years old
b)C = 4 x 10 – 6 = 34
2u = 34 – 10 = 24
1u = 24÷2 = 12
12 – 10 = 2 years' time

13)18, 36, 54
1 + 3 = 4 times

14)a)2 x 2 x 2 x 2 x 2 x 2 = 64
b)64 x 3.95 = 252.8 cm
= 2.528m ≈3m

15)1/6 x 120 = 20
1/6 x 30u = 5u
4/5 x 30u = 24u
24u – 5u – 20 = 75
19u = 95
60u = 95/19 x 60 = 300
300 + 120 = 420

16)a)$\frac{1200}{20x15}$ = 14

$\frac{720}{20x18}$ = 2

4 + 2 = 6
15÷6 = 2.5 min

b)$\frac{1200 \text{ x } 2.5}{20 \text{ x } 15}$ = 10 cm

17)a)$180 - 23 = 157$

$\angle x = 157 \div 2 = 78.5°$

b)$180 - 23 - 78.15 = 78.85°$

$\angle y = 360 - 90 - 78.15 - 78.85 = 113°$

18)$5p = 8u - 16$

$1p = 1u + 7$

$5p = 5u + 35$

$8u - 16 = 5u + 35$

$8u - 5u = 35 + 16$

$3u = 51$

$1u = 51 \div 3 = 17$

$17 + 7 = 24$

$24 \times 2 = 48$

PSLE
Index No.

MARIS STELLA HIGH SCHOOL (PRIMARY)

PRELIMINARY EXAMINATIONS

PRIMARY 6 MATHEMATICS

20 AUGUST 2014

PAPER 1

(BOOKLET A)

15 questions

20 marks

Total time for Booklets A and B: 50 min

NAME : _____ ( )

CLASS : PRIMARY 6 _____

Questions **1** to **10** carry 1 mark each. Questions **11** to **15** carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet.

(20 marks)

---

1. What is five million, one thousand and twenty-eight in numerals?

   (1) 501 028
   (2) 510 028
   (3) 5 001 028
   (4) 5 100 028

2. The number of books in a warehouse when rounded off to the nearest hundred was 8000. What was the possible number of books in the warehouse?

   1) 7560
   2) 7950
   3) 8150
   4) 8460

3. $7 \div 25 =$ _____ thousandths.

   (1) 0.28
   (2) 0.208
   (3) 208
   (4) 280

4. Which one of the following is nearest to 1?

   (1) $\frac{2}{3}$
   (2) $\frac{4}{5}$
   (3) $1\frac{1}{4}$
   (4) $\frac{7}{6}$

5. Which one of the following is equal to $\frac{3}{8} \div 12$?

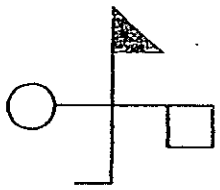
(1) $\frac{3}{8} \times \frac{1}{12}$

(2) $\frac{3}{8} \times \frac{12}{1}$

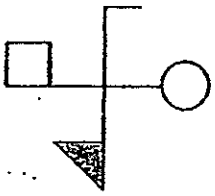
(3) $\frac{8}{3} \times \frac{1}{12}$

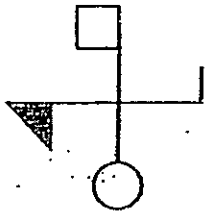
(4) $\frac{8}{3} \times \frac{12}{1}$

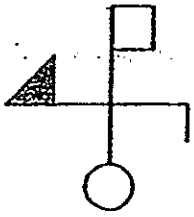
6. Min Xie drew the diagram below. He then gave it a three-quarter turn in a clockwise direction.

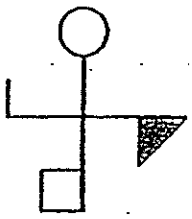


Which one of these is the correct figure after the turn?

1) 

2) 

3) 

4) 

7. Darren had \$20. After buying 5 identical caps, he has \$$y$ left. Find the cost of one such cap in terms of y.

(1) $\$(4 - y)$

(2) $\$(\frac{15}{y})$

(3) $\$(\frac{19y}{5})$

(4) $\$(\frac{20 - y}{5})$

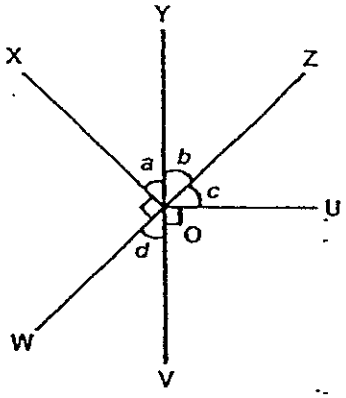
8. In the figure below, WZ and YV are straight lines. Which of the following two angles will not add up to 90°?

1) $\angle a$ and $\angle b$

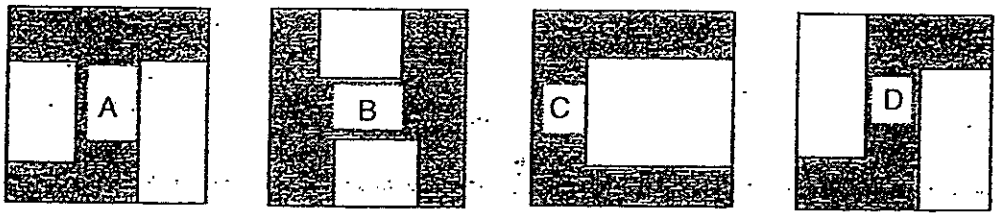
2) $\angle a$ and $\angle c$

3) $\angle b$ and $\angle c$

4) $\angle c$ and $\angle d$



9. Various shapes were shaded on 4 identical sheets of square paper shown below.



Which one of these shapes has the same perimeter as the original sheet of square paper?

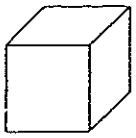
(1) A

(2) B

(3) C

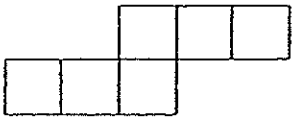
(4) D

10. The figure below shows a cube.

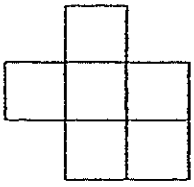


Which one of the following is a net of the cube?

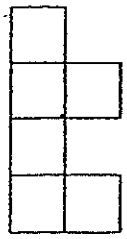
(1)



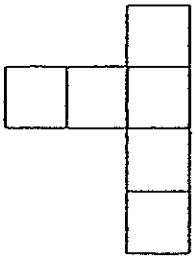
(2)



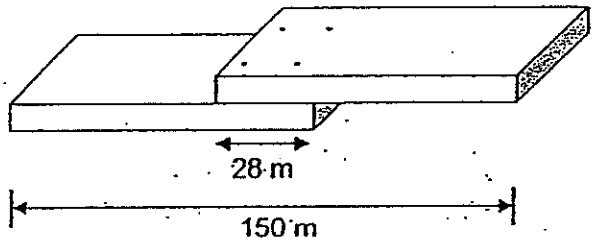
(3)



(4)



11. Two identical rectangular pieces of plank were nailed together as shown below. The overlapped portion is 28 m long.



What is the length of each piece of plank before they were nailed together?

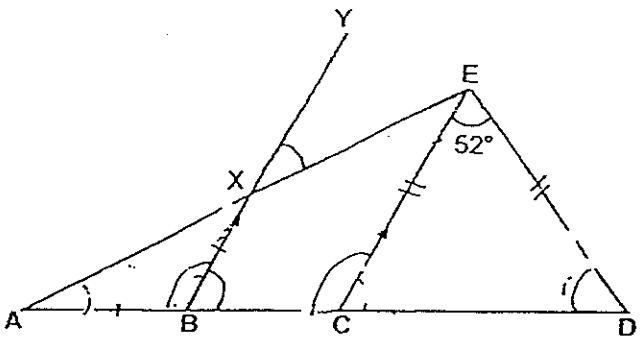
(1) 61 m

(2) 89 m

(3) 103 m

(4) 122 m

12. In the figure below, AE and AD are straight lines. BY is parallel to CE, CE = DE and AB = BX. Find the value of ∠YXE.



(1) 32°

(2) 38°

(3) 58°

(4) 64°

13. 15% of the cupcakes in a bakery is as many as 25% of the buns it has. There are 40 more cupcakes than buns. How many cupcakes are there?

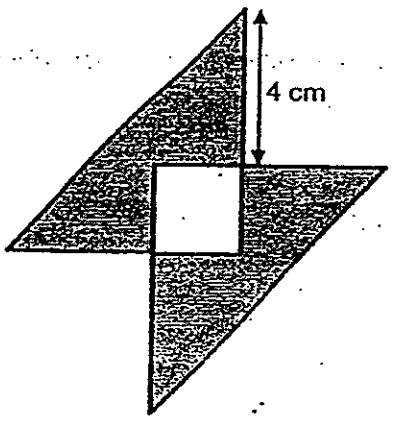
(1) 60

(2) 100

(3) 160

(4) 400

14. The figure below is not drawn to scale. Two identical right-angled isosceles triangles overlapped to form a square with a perimeter of 8 cm. Find the area of the shaded parts.



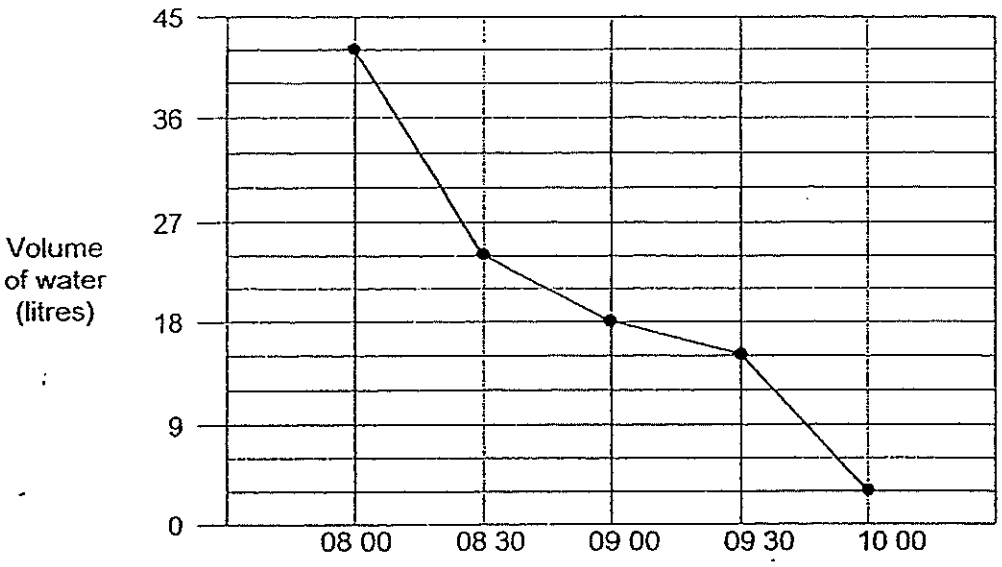
(1) 16 cm^2

(2) 28 cm^2

(3) 32 cm^2

(4) 36 cm^2

15. There were 45 litres of water in a tank at 08 00. Water flowed out of the tank from 08 00 to 10 00 as shown in the line graph below.



On the average, what is the rate of water that flowed out of the tank?

(1) 7.8 ℓ / h

(2) 9.75 ℓ / h

(3) 19.5 ℓ / h

(4) 22.5 ℓ / h

End of Booklet A

Go on to Booklet B

PSLE
Index No. | | | | | | – | |

MARIS STELLA HIGH SCHOOL (PRIMARY)
PRELIMINARY EXAMINATIONS
PRIMARY 6 MATHEMATICS
20 AUGUST 2014
PAPER 1
(BOOKLET B)

15 questions
20 marks

Total time for Booklets A and B: 50 min

NAME : _____ ( )

CLASS : PRIMARY 6 _ _____

INSTRUCTIONS TO CANDIDATES

1. **DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.**
2. **FOLLOW ALL INSTRUCTIONS CAREFULLY.**
3. **ANSWER ALL QUESTIONS.**
4. **WRITE YOUR ANSWERS IN THIS BOOKLET.**
5. **YOU ARE NOT ALLOWED TO USE A CALCULATOR.**

Questions **16** to **25** carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

Do not write in this space.

16. Express 12 kg 23 g in kg.

Answer : _____ kg

17. Find the value of $(8 + 4 \times 2) \div 2 \times 4$.

Answer : _____

18. Express 8.05 as a mixed number in its simplest form.

Answer : _____

19. The opening hours of a seafood restaurant is as follows:

Opening hours
Lunch: 11.00 a.m. to 2.30 p.m.
Dinner: 5.30 p.m. to 1.30 a.m.

How long does the restaurant open each day?

Answer : _____ h _____ min

SCORE

(Go on to the next page)

20. Find the missing number in the box.

$0.204 = \boxed{} \div 100$

Answer : _____

21. What is the largest common factor of 12 and 18?

Answer : _____

22. In the diagram below, the word 'MARIST' is formed with 6 letters. How many of these letters have exactly one line of symmetry each?

M A R I S T

Answer : _____

23. There are blue, red and green buttons in a tray. The number of blue buttons is twice that of the red buttons. The ratio of the number of blue buttons to the number of green buttons is 4 : 5. Find the ratio of the number of red buttons to the number of green buttons.

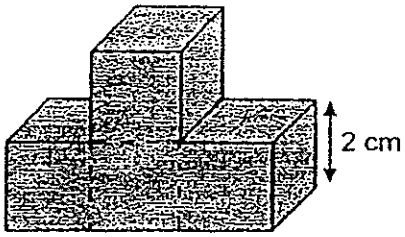
Answer : _____

Do not write in this space.

SCORE
(Go on to the next page)

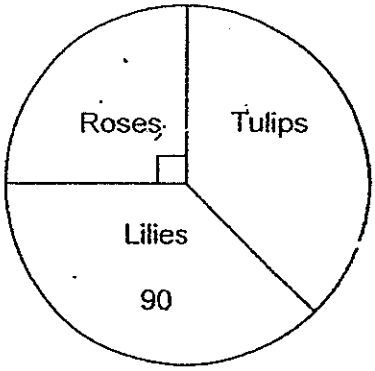
24. The block of wood shown below was dipped into a container of paint. The block was then cut into 4 identical cubes along the dotted lines and taken apart. Find the total unpainted area of the 4 cubes.

Do not write in this space.



Answer : _____ cm^2

25. The pie chart shows the different types of flowers a florist sold last week. She sold an equal number of tulips and lilies.



How many roses did the florist sell last week?

Answer : _____

SCORE

(Go on to the next page)

Questions 26 to 30 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated (10 marks)

Do not write in this space.

26. A repeated pattern is formed using the 4 letters A, B, C and D.
The first 16 letters are shown below.

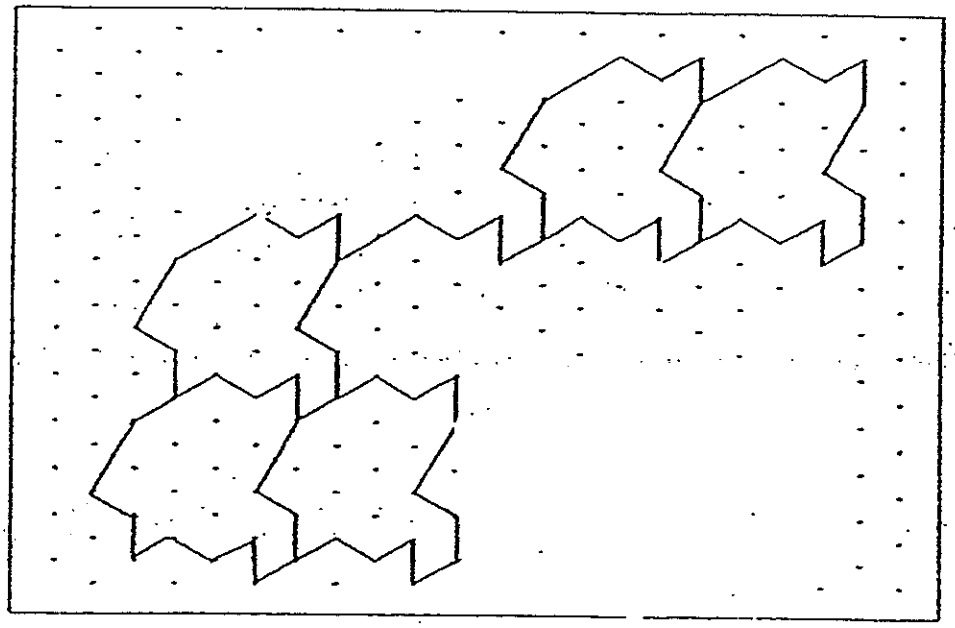
A B C D D C B A A B C D D C B A

1st 2nd 3rd 16th

How many 'D' are there in the first 125 letters?

Answer _____

27. The pattern in the box shows part of a tessellation. Extend the tessellation by drawing two more unit shapes in the space provided within the box.



SCORE

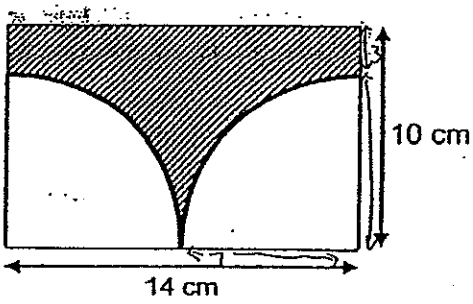
(Go on to the next page)

28. Matthew and Damon had the same amount of money at first. Matthew spent \$120 and Damon spent $\frac{2}{3}$ of his money. In the end, the ratio of the amount of money Matthew has to the amount of money Damon has is 2 : 1. How much money has Matthew in the end?

Do not write in this space.

Answer : \$ _____

29. A rectangle measures 14 cm by 10 cm. Two identical quadrants are cut out from it as shown below. Find the perimeter of the remaining rectangle (shaded part). (Take $\pi = \frac{22}{7}$)



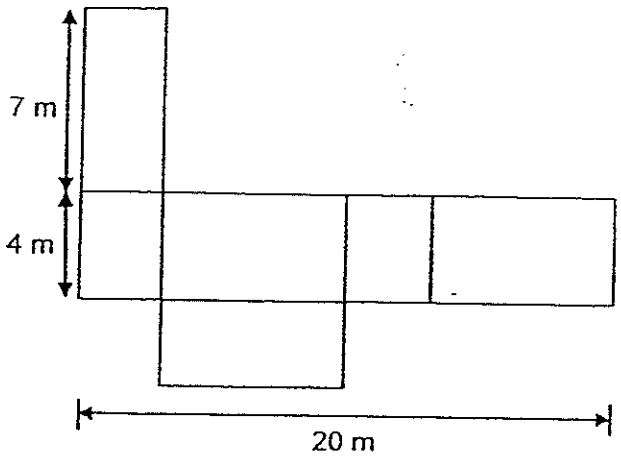
Answer : _____ cm

SCORE

(Go on to the next page)

30. The figure below, not drawn to scale, is the net of a cuboid. Find the volume of the cuboid.

Do not write in this space.



Answer : _____ m^3

End of Booklet B

SCORE

PSLE
Index No. | | | | | | | |

MARIS STELLA HIGH SCHOOL (PRIMARY)
PRELIMINARY EXAMINATIONS
PRIMARY 6 MATHEMATICS
20 AUGUST 2014
PAPER 2

18 questions
60 marks
Time: 1 h 40 min

NAME : _____ ( )

CLASS : PRIMARY 6 _____

INSTRUCTIONS TO CANDIDATES

1. DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.
2. FOLLOW ALL INSTRUCTIONS CAREFULLY.
3. ANSWER ALL QUESTIONS.
4. SHOW YOUR WORKINGS CLEARLY AS MARKS ARE AWARDED FOR CORRECT WORKING.
5. WRITE YOUR ANSWERS IN THIS BOOKLET.
6. YOU ARE **ALLOWED** TO USE A CALCULATOR.

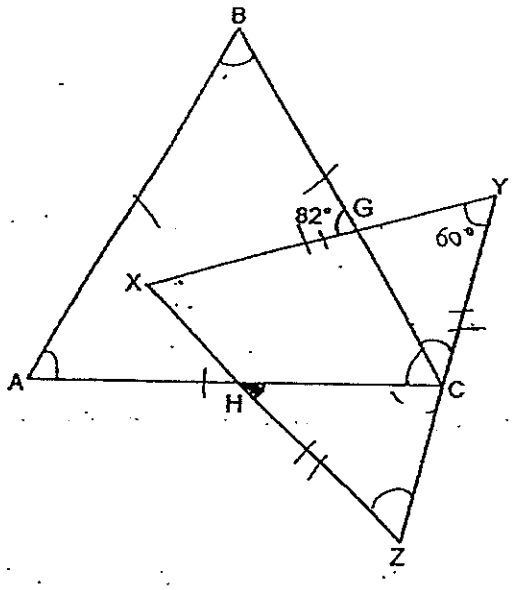
Questions 1 to 5 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

Do not write in this space.

1. Jasper mixed some blue and yellow paint in the ratio 2 : 3 to make some green paint. He used 1.8 ℓ of yellow paint and the correct amount of blue paint. How many litres of green paint did he get?

Answer : _____ ℓ

2. In the diagram below, ABC and XYZ are equilateral triangles, and ∠BGX = 82°. Find ∠CHZ.



Answer : _____ °

SCORE
(Go on to the next page)

3. The table below shows the marks Jason scored for his first three Math tests. He wants to improve his average score by 2 marks. How many marks must he score for the next Math test?

Do not write in this space.

Test	1	2	3	4
Score	78	84	72	?

Answer : _____

4. Benny had $80 more than Jared. After Jared gave $35 to Benny, Benny had 3 times as much money as Jared. How much money did Jared have in the end?

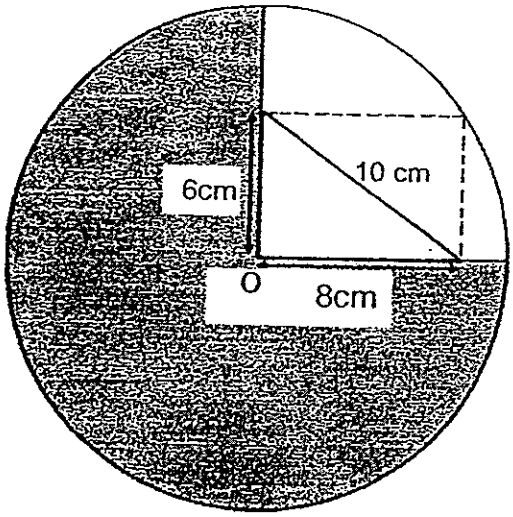
Answer : $_____

SCORE

(Go on to the next page)

5. A rectangle is placed in a circle with O as the centre. Use the calculator value of π to find the shaded part of the circle. Correct your answer to 2 decimal places.

Do not write in this space.



Answer : _____ cm^2

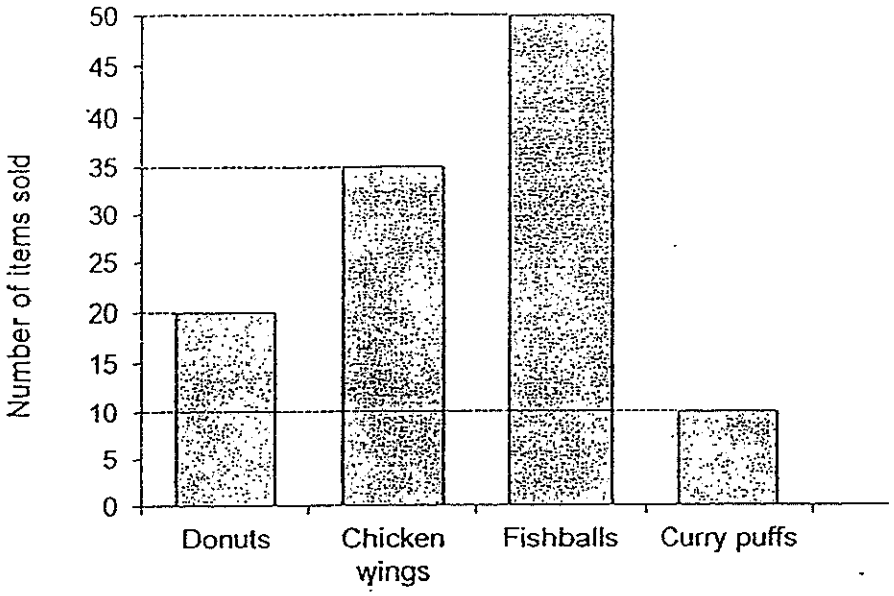
SCORE

(Go on to the next page)

For Questions 6 to 18, show your working clearly in the space below each question and write your answer in the spaces provided. The number of marks available is shown in the brackets ( ) at the end of each question or part-question. (50 marks)

Do not write in this space.

6. The bar graph below shows the number of food items sold at a carnival.



(a) Find the total number of items sold at the carnival.

(b) $97.50 was collected from selling the donuts, chicken wings and fishballs at the carnival. The prices of these items were in the ratio 2 : 3 : 1. How much was each chicken wing sold for?

Answer : (a) _____ [1]

(b) _____ [2]

SCORE

7. The table shows the number of pens sold at a bookshop last week.

Day	Number of pens sold
Monday to Friday	$2p$ per day
Saturday	$p + 40$
Sunday	$3p - 5$

(a) What was the total number of pens sold last week? Express your answer in terms of p in the simplest form.

(b) If $p = 30$, how many pens were sold on Sunday?

Answer : (a) _____ [2]

(b) _____ [1]

8. Box A contains only 50¢ coins while Box B contains only 20¢ coins.
There are 19 more coins in Box B than in Box A.
The total amount of money in Box A and Box B is \$15.
How many 50¢ coins can all the 20¢ coins in Box B be changed into?

Answer : _____ [3]

Do not write in this space.

SCORE

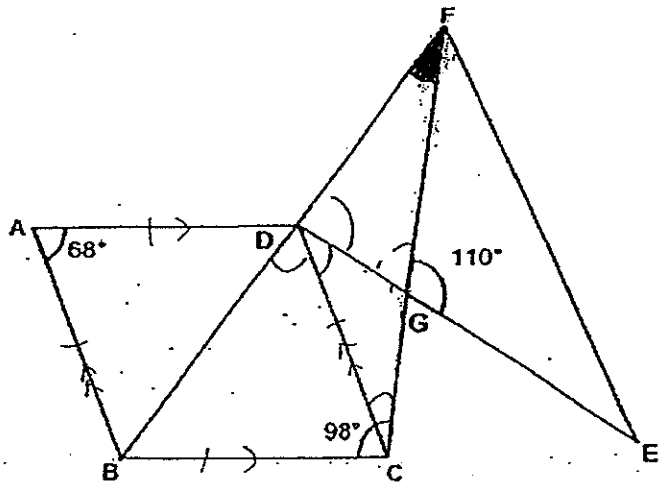
(Go on to the next page)

9. At a concert, $\frac{3}{8}$ of the audience were boys. $\frac{1}{2}$ of the remaining audience were girls. There were 120 women and the number of men was $\frac{2}{3}$ the number of women. How many people were there in the audience?

Do not write in this space.

Answer : _____ [3]

10. The figure below is not drawn to scale. ABCD is a rhombus and ∠BCF is 98°. BDF, CGF, EGD are straight lines. Find ∠DFG.

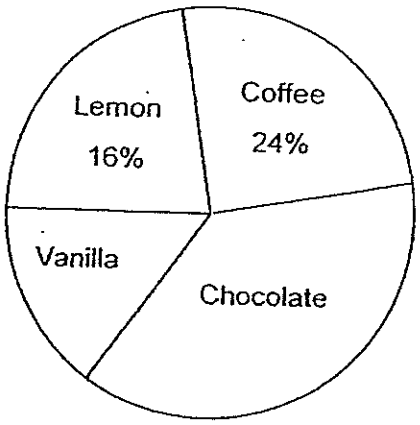


Answer : _____ [3]

SCORE
(Go on to the next page)

11. Some people participated in a survey to select their favourite of ice-cream flavour. The pie chart below shows the results of the survey. The ratio of the number of people who prefer vanilla to chocolate flavour is 1 : 3.

Do not write in this space.



(a) What percentage of the participants prefer vanilla flavour?

(b) If 10% of the participants who selected lemon as their favourite flavour had selected coffee instead, how many per cent of the participants selected coffee as their favourite flavour?

Answer: (a) _____ [1]

(b) _____ [2]

SCORE
(Go on to the next page)

12. Singapore and Kuala Lumpur is 375 km apart. Raphael left Singapore for Kuala Lumpur at 10.00 a.m. travelling at an average speed of 75 km/h.
Sean left Singapore later than Raphael and caught up with him at 12.00 noon. Sean was travelling at a speed of 90 km/h.

(a) At what time did Sean leave Singapore?

(b) How much later did Raphael arrive in Kuala Lumpur than Sean?

Do not write in this space.

Answer: (a) _____ [2]

(b) _____ [2]

SCORE

13. The figures below are not drawn to scale. Figure 1 shows a rectangular piece of paper ACDF that measures 18 cm by 14 cm. AB = ED = 5 cm.
The paper is folded along the dotted line BE such that point C touches point F, as shown in Figure 2.

Do not write in this space.

Figure 1

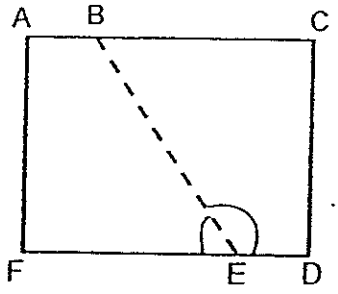
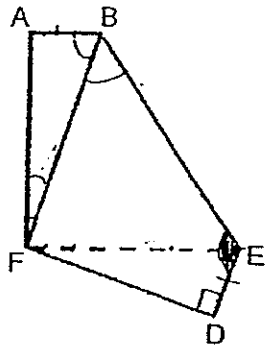


Figure 2



(a) Find the area of Figure 2, ABEDF, after the folding.

(b) In Figure 2, ∠ABC is 76°. Find ∠BED in Figure 2.

Answer: (a) _____ [2]

(b) _____ [2]

SCORE
(Go on to the next page)

14. Haoming made patterns using triangles, circles and sticks and recorded the pattern in the table shown below.

Do not write in this space.

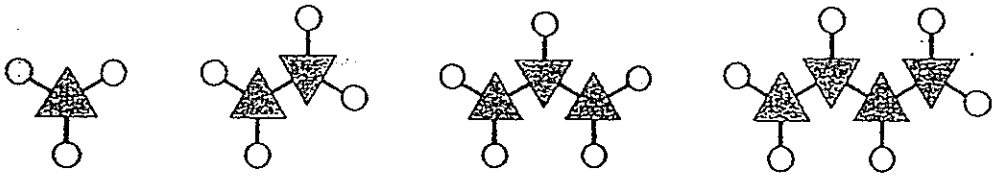


Figure 1 Figure 2 Figure 3 Figure 4

Figure number	Number of circles	Number of sticks
1	3	3
2	4	5
3	5	7
4	6	9
...	...	...
20	(a)	(b)
...	...	...
(c)	...	115

(a) How many circles are needed for Figure 20?

(b) How many sticks are needed for Figure 20?

(c) Which Figure needs a total of 115 sticks?

Answer: (a) _____ [1]

(b) _____ [2]

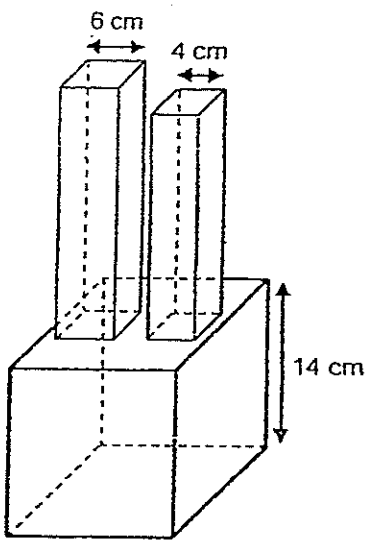
(c) _____ [2]

SCORE

(Go on to the next page)

15. The figure shows an empty transparent vase made from three containers. The two containers on top are in the form of cuboids which have square bases of side 6 cm and 4 cm as shown in the figure. The bottom container is in the form of a cube of side 14 cm.

Do not write in this space.



3.42 ℓ of water are poured into the empty vase. Find the height of the water level from the base of the vase. (1 litre = 1000 cm³)

Answer: _____ [5]

SCORE

(Go on to the next page)

16. A fruit seller has some apples and pears.
If he sells twice as many pears as the apples, he would have 207 apples left when all the pears are sold.
If he sells twice as many apples as the pears, he would have 72 apples left when all the pears are sold.

(a) How many pears does the fruit seller have?

(b) Mrs Ong buys all the pears from the fruit seller. The price of a pear is 80¢.
For every 3 pears she buys, she gets one more at half the price.
How much does Mrs Ong pay for all the pears?

Do not write in this space.

Answer: (a) _____ [3]

(b) _____ [2]

SCORE

17. On Friday, shirts in a shop were sold at $30 each.
On Saturday, a discount was given on all the shirts, and the number of shirts sold increased by 20%. The total amount of money collected increased by 14%.

(a) What was the price of a shirt sold on Saturday?

(b) What was the percentage discount given for each shirt on Saturday?

Do not write in this space.

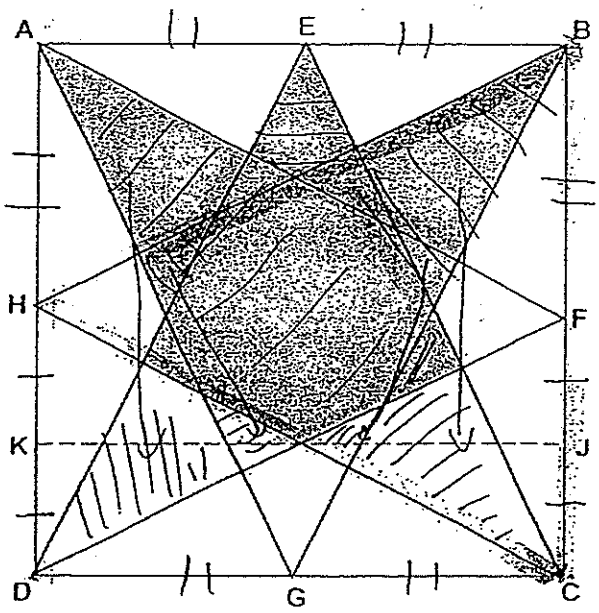
Answer: (a) _____ [3]

(b) _____ [2]

SCORE

18. The figure below is formed using four identical isosceles triangles, ABG, BCH, ADF and DCE. ABCD is a square where E, F, G and H are midpoints of its sides. Given FJ = CJ, HK = DK and AB = 14 cm, find the total area of the shaded parts.

Do not write in this space.



Answer : _____ [4]

End of Paper 2

SCORE

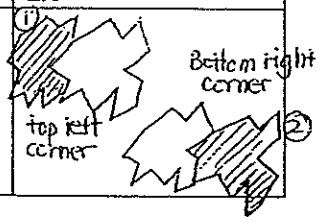
Maris Stella High School (Primary) P6 Preliminary Exam Mathematics 2014

Paper 1

Booklet A

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
3	2	1	4	1	3	4	2	4	1	2	1	2	2	3

Booklet B

16	12.023 kg	17	32	18	$8\frac{1}{20}$	19	11 h 30 min
20	20.4	21	6	22	3	23	2:5
24	24 cm^2	25	60	26	32	27	
28	\$240	29	42 cm	30	84 m^3		

Paper 2

1 B : Y
2 : 3 3 units → 1.8 L; 1 unit → 1.8 L ÷ 3 = 0.6 L; 5 units → 0.6 L x 5 = **3** L

2 ∠CZH = ∠GCH = 60° ; ∠YCG = 180° – 60° – 82° = 38° ; ∠YGC = ∠ZCH = 82° ;
∠CHZ = 180° – 60° – 82° = **38°**

3 **86** marks

4 2 units → \$80 + \$35 + \$35 = \$150; 1 unit → 150 ÷2 = **\$75**

5 radius → 10cm; Shaded part → ¾ x Π x 10 cm x 10 cm = **235.62 cm^2** (to 2 decimal places)

6 a **115** items b **\$1.50**

7 a Monday to Friday → 2p x 5 = 10p
Saturday and Sunday → p + 40 +3p – 5 = 4p + 35
Total number of pens → 10p + 4p + 35 = **(14p + 35) pens**
b Sold on Sunday → 3 x 30 – 5 – 90 – 5 = **85 pens**

8 **14** 50-cents coins

9 **640** people

10 ∠BDC → (180° – 68°) ÷ 2 = 56° = ∠FBC; ∠DFG → 180° – 56° – 98° = **26°**

11 a **15%** b Percentage of coffee = 32÷125 x 100% = $25\frac{2}{5}$%

12 a **10.20 am** b Distance travelled after 12 noon = 375 km – 150 km = 225 km
Time Sean took → 225 km ÷ 90 km/h = 2 ½ h
Time Raphael took → 25 km ÷ 75 km/h = 3 h
Difference in time = **½ h** later

13 a **161 cm^2** b **128°**

14 a No. of circles in Figure 20 → 20 x 1 + 2 = **22**
b No. of sticks in Figure 20 → 20 x 2 + 1 = **41**
c Figure with 115 sticks = (115-1) ÷ 2 = **57**

15 3.42 L = 3420 cm^3; volume of cube → 14 cm x 14 cm x 14 cm = 2744 cm^3
Volume of water in two cuboids → 3420 cm^3 – 2744 cm^3 = 676 cm^3
Base area of both cuboids → 6 cm x 6 cm + 4 cm x 4 cm = 52 cm^2
Height of water in two cuboids → 676 cm^3 ÷ 52 cm^2 = 13 cm
Water level = 13 cm + 14 cm = **27 cm**

16 Case 1 – Pears (P) : Apples (A) = 2 : 1; Case 2 – P : A = 1 : 2 = 2 : 4
a 3 units → 207 – 72 = 135; 1 unit → 135 ÷ 3 = 45; 2 units → 45 x 2 = **90**
b No. of sets → 90 ÷ 4 = 22R2; 1 set → 3 x \$0.80 + ½ x \$0.80 = \$2.80
Total paid = \$2.80 x 22 + 2 x \$0.80 = **\$63.20**

17 a **\$28.50** b **5%**

18 ½ x 14 x 14 = 98; 14÷4 = 3.5; ½ x 14 x 3.5 = 24.5; 98-24.5 = **73.5 cm^2**