

# 2020

## P6 Math

1.	Anglo Chinese School	
2.	Henry Park	
3.	Methodist Girls	
4.	Nan Hua	
5.	Nanyang	
6.	Raffles Girls	
7.	Red Swastika	
8.	Rosyth	
9.	Singapore Chinese Girls	
10.	Tao Nan	
11.	Temasek Primary	



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Anglo-Chinese School (Junior)/  
Anglo-Chinese School (Primary)



COMBINED PRELIMINARY EXAMINATION (2020)  
PRIMARY 6

MATHEMATICS

PAPER 1  
Booklet A

Friday

21 August 2020

1 h

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 (      )

This question paper consists of 8 printed pages. (Inclusive of cover page)



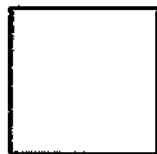
Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each.  
For each question, four options are given. One of them is the correct answer.  
Make your choice (1, 2, 3 or 4) and shade your answer on the Optical Answer Sheet (OAS). (20 marks)

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1. How many ten thousands are there in 4 710 000?

- 1) 47
- 2) 471
- 3) 4710
- 4) 47100

2. How many of the following figures have at least one line of symmetry?



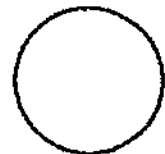
Square



Parallelogram



Rhombus



Circle

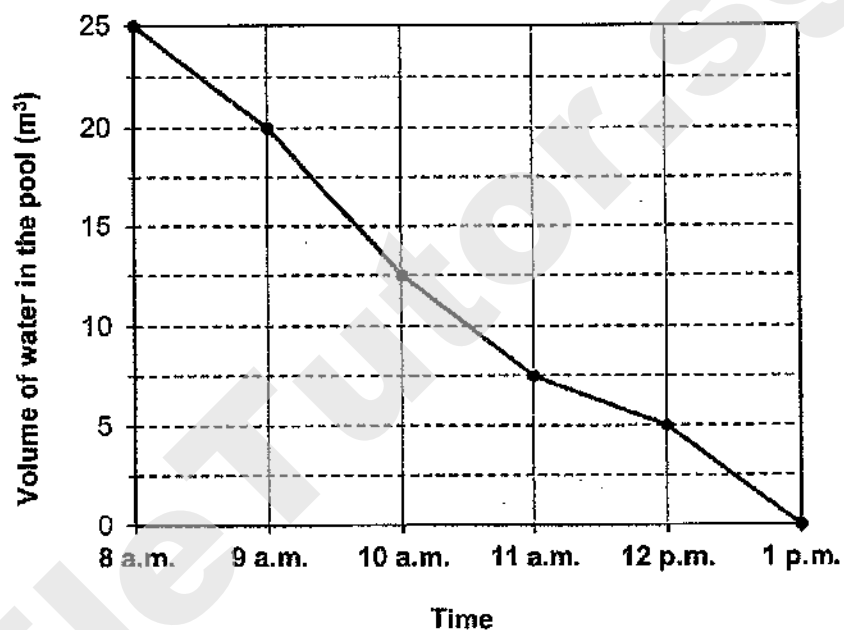
- 1) 1
- 2) 2
- 3) 3
- 4) 4

3. Express  $6\frac{2}{500}$  as a decimal.

- 1) 6.2
- 2) 6.4
- 3) 6.04
- 4) 6.004



4. At 8 a.m., a swimming pool was completely filled with water. From 8 a.m. to 1 p.m., water was drained from the swimming pool. The line graph below shows the volume of water in the swimming pool from 8 a.m. to 1 p.m.



During which one-hour period was the decrease in the volume of water the greatest?

- 1) Between 8 a.m. and 9 a.m.
- 2) Between 9 a.m. and 10 a.m.
- 3) Between 10 a.m. and 11 a.m.
- 4) Between 11 a.m. and 12 p.m.



5. The table below shows the number of 'Arts Fiesta' tickets sold over a period of five days. The total number of tickets sold was 1380. What is the average number of tickets sold on Wednesday, Thursday and Friday?

Days	Tickets sold
Monday	325
Tuesday	380
Wednesday	?
Thursday	?
Friday	?

- 1) 205  
2) 225  
3) 675  
4) 705
6. Isaac ran round a circular track 3 times for his training. The radius of the track was 56 m. How far did he run? (Take  $\pi = \frac{22}{7}$ )
- 1) 168 m  
2) 352 m  
3) 528 m  
4) 1056 m



7. A tank measured 40 cm by 15 cm by 30 cm is half filled with water. Find the volume of water in the tank.

- 1) 9 l
- 2) 18 l
- 3) 9000 l
- 4) 18000 l

8. Arrange the following fractions from the smallest to the largest:

$1\frac{1}{6}, \quad \frac{5}{4}, \quad \frac{10}{9}$
---

1)  $1\frac{1}{6}, \frac{10}{9}, \frac{5}{4}$

2)  $\frac{5}{4}, \frac{10}{9}, 1\frac{1}{6}$

3)  $\frac{5}{4}, 1\frac{1}{6}, \frac{10}{9}$

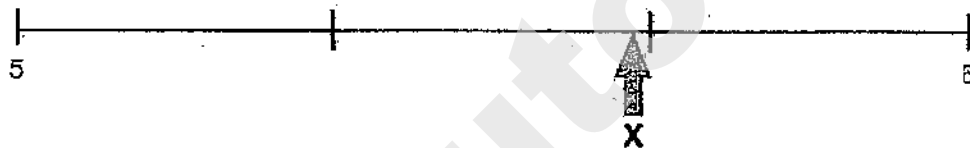
4)  $\frac{10}{9}, 1\frac{1}{6}, \frac{5}{4}$



9. One of the angles of a trapezium is  $55^\circ$ . Which of the following are possible values of the remaining angles?

- 1)  $115^\circ$ ,  $55^\circ$  and  $125^\circ$
- 2)  $115^\circ$ ,  $55^\circ$  and  $65^\circ$
- 3)  $115^\circ$ ,  $55^\circ$  and  $115^\circ$
- 4)  $115^\circ$ ,  $65^\circ$  and  $125^\circ$

10. In the number line shown below, which value is closest to the reading at X?



- 1) 5.190
- 2) 5.495
- 3) 5.590
- 4) 5.725

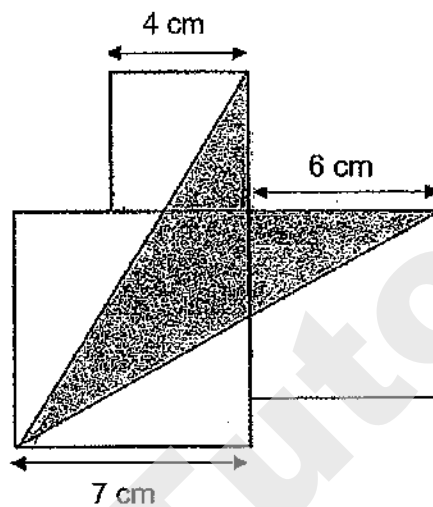
11. Mr Lee had some magazines. He sold 315 magazines from Monday to Friday. He sold  $\frac{2}{5}$  of the remaining magazines on Saturday and Sunday.

The number of magazines left was  $\frac{1}{4}$  of what he had at first. How many magazines did he have at first?

- 1) 540
- 2) 405
- 3) 90
- 4) 45



12. The figure below is made up of 3 squares. Find the shaded area.



- 1)  $31 \text{ cm}^2$
- 2)  $35 \text{ cm}^2$
- 3)  $36 \text{ cm}^2$
- 4)  $48 \text{ cm}^2$

Machine A prints 16 pages more than Machine B in every minute. Machine A and Machine B print a total of 608 pages in 4 minutes. At this rate, how many pages does Machine A print in 1 minute?

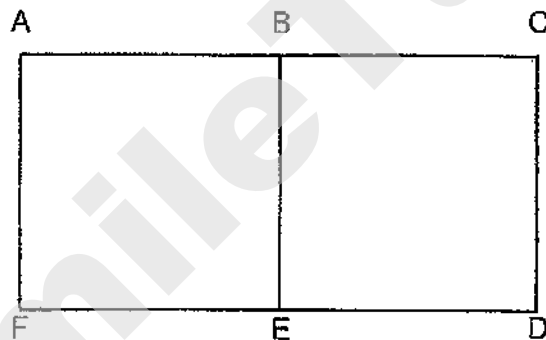
- 1) 68
- 2) 74
- 3) 84
- 4) 90



14. A box of cookies was shared between Jesse and Linn in the ratio of 7 : 4. Linn then decided to share her portion of cookies with her younger brother in the ratio 5 : 3 while Jesse shared her portion of the cookies with her elder sister in the ratio 4 : 3. Among the four of them, the smallest portion of cookies was 12 pieces. How many pieces of cookies were there in the box at first?

- 1) 33
- 2) 44
- 3) 66
- 4) 88

15. The map below shows the locations of 6 places, A, B, C, D, E and F. ABEF and BCDE are squares. Location C is south of location E. Which of the following location is north-east of B?



- 1) A
- 2) C
- 3) D
- 4) F



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**Anglo-Chinese School (Junior)/  
Anglo-Chinese School (Primary)**



**COMBINED PRELIMINARY EXAMINATION (2020)  
PRIMARY 6**

**MATHEMATICS**

**PAPER 1  
Booklet B**

**Friday**

**21 August 2020**

**1 h**

**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.
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**Name :** \_\_\_\_\_ (       )

**Class :** 6.(       )

**This question paper consists of 10 printed pages. (Inclusive of cover page)**



Questions 16 to 20 carry 1 mark each. Write your answers in the spaces provided.  
For questions which require units, give your answers in the units stated.

(5 marks)

16. In a sports race, Ethan had to complete swimming, cycling and running.  
The table below shows the time taken for each sports.

Segments	Time Taken (min)
Swimming	39
Cycling	58
Running	46

What was the total time Ethan took to complete the 3 sports? Give your answer in hours and minutes.

Answer: \_\_\_\_\_ h \_\_\_\_\_ min

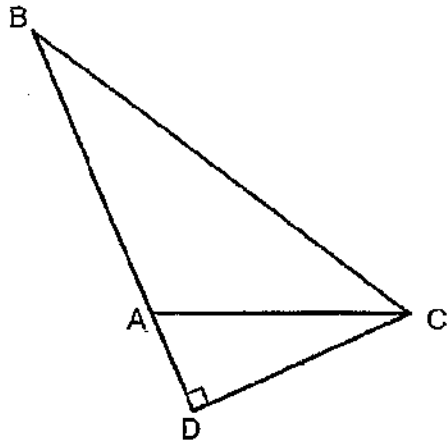
17. Arrange the following from the lightest to the heaviest.

6.35 kg	6 kg 35 g	$6\frac{1}{3}$ kg
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Answer: \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_  
(lightest) (heaviest)



18. In the figure below, BD is 20 cm and CD is 8 cm. AD is  $\frac{1}{4}$  of BD.  
Find the area of triangle ABC.



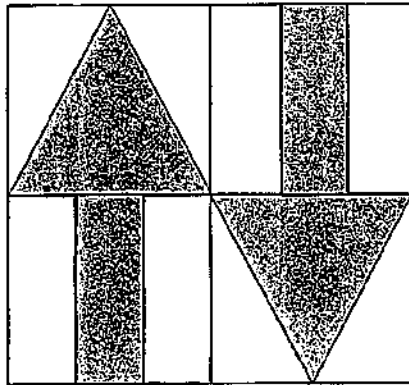
Answer: \_\_\_\_\_ cm<sup>2</sup>

19. What is the fraction exactly between  $\frac{2}{7}$  and  $\frac{2}{5}$ ?

Answer: \_\_\_\_\_



20. The figure is made up of 4 squares. Two of the squares are divided equally into 3 rectangles. What fraction of the figure is shaded?



Answer: \_\_\_\_\_



Questions 21 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. (20 marks)

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21. Find the value of  $83 - \frac{74 - 6y}{y} - y$  when  $y = 4$ .

Answer: \_\_\_\_\_

22. The table below shows the number of hours that a group of 24 students spent on building a model in a day.

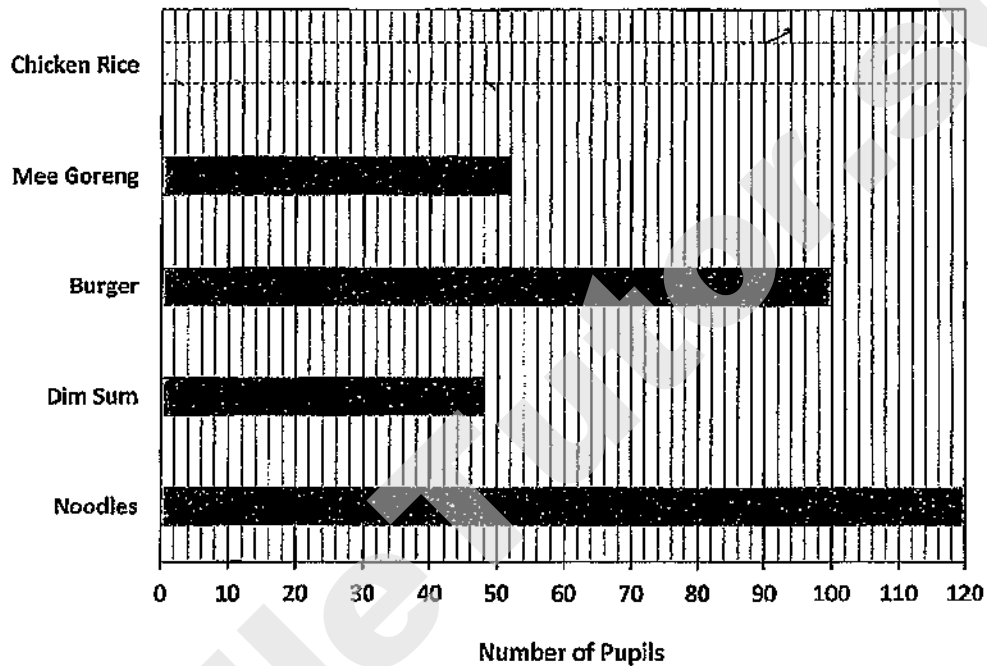
Number of hours spent by each pupil	0	3	4	5
Number of pupils	2	9	8	5

What is the average number of hours each student spent on building the model each day?

Answer: \_\_\_\_\_ h



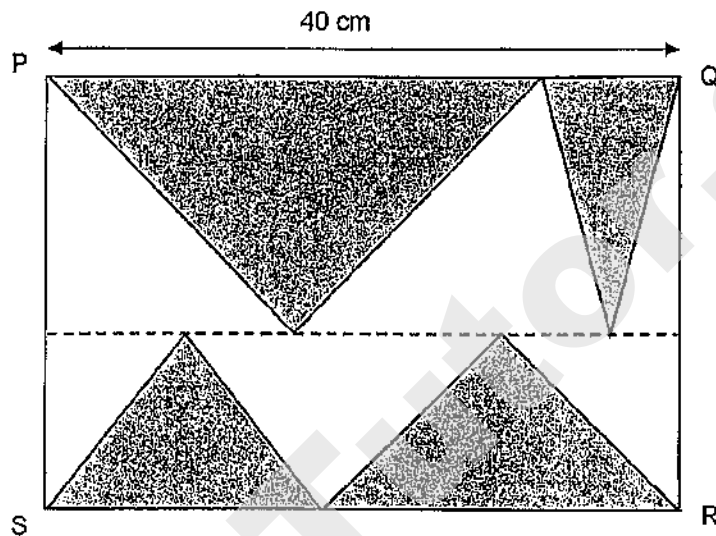
23. The bar graph shows the type of food consumed by a group of pupils in a school canteen. The bar that shows the number of pupils who consumed chicken rice has not been drawn.



20% of the pupils in the canteen consumed chicken rice. Draw the bar that shows the number of pupils who consumed chicken rice in the graph above.



24. The figure below shows 4 shaded triangles inside rectangle PQRS. The dotted line is parallel to PQ and SR. The total shaded area is  $500 \text{ cm}^2$ . Find the length of QR.



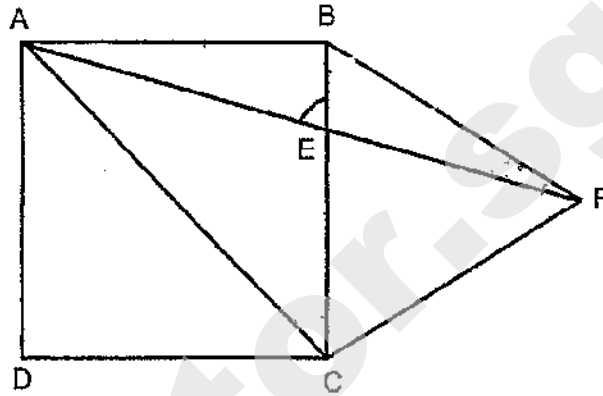
Answer: \_\_\_\_\_ cm

25. Tina packed some gift bags for charity drive. She packed 7 bottles of hand sanitizers, 4 masks and 2 granola bars into every gift bag. She used 117 more hand sanitizers than masks for all her gift bags. How many granola bars did Tina pack altogether?

Answer: \_\_\_\_\_



26. In the figure below, not drawn to scale, ABCD is a square and BCF is an equilateral triangle. AEF is a straight line. Find  $\angle AEB$ ,



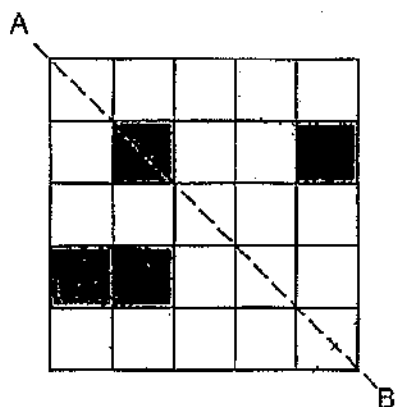
Answer: \_\_\_\_\_°

27. There were 150 members in a club in March. This was an increase of 20% when compared to February. In April, only 115 members remained in the club. What is the percentage decrease in the number of members in April compared to February?

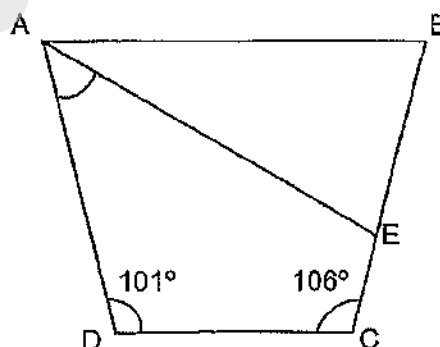
Answer: \_\_\_\_\_%



28. In the figure below, shade the minimum additional number of squares so that AB is the line of symmetry for the figure.



29. ABCD is a trapezium.  $\angle BCD = 106^\circ$  and  $\angle ADC = 101^\circ$ .  $AB \parallel AE$ . Find  $\angle DAE$ .




Answer: \_\_\_\_\_°

Sub-Total :



30. Kelly has \$38. What is the greatest number of muffins she can buy?

First 3 muffins	\$3.20 each
Additional muffin	\$3 each



Answer: \_\_\_\_\_

**End of Paper 1**



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**Anglo-Chinese School (Junior)/  
Anglo-Chinese School (Primary)**



**COMBINED PRELIMINARY EXAMINATION (2020)  
PRIMARY 6**

**MATHEMATICS**

**PAPER 1  
Booklet B**

**Friday**

**21 August 2020**

**1 h**

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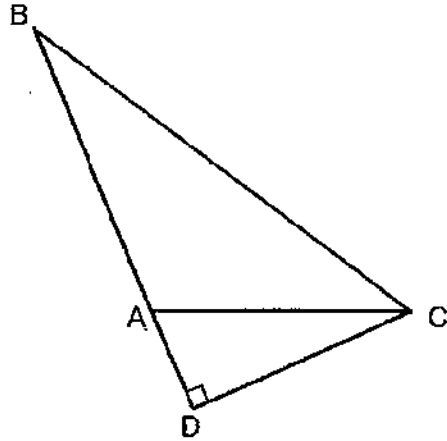
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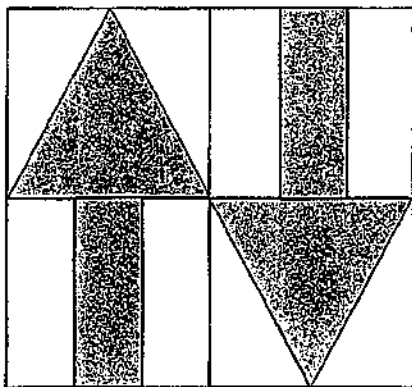
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Answer: \_\_\_\_\_



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21. Find the value of  $83 - \frac{74 - 6y}{y} - y$  when  $y = 4$ .

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22. The table below shows the number of hours that a group of 24 students spent on building a model in a day.

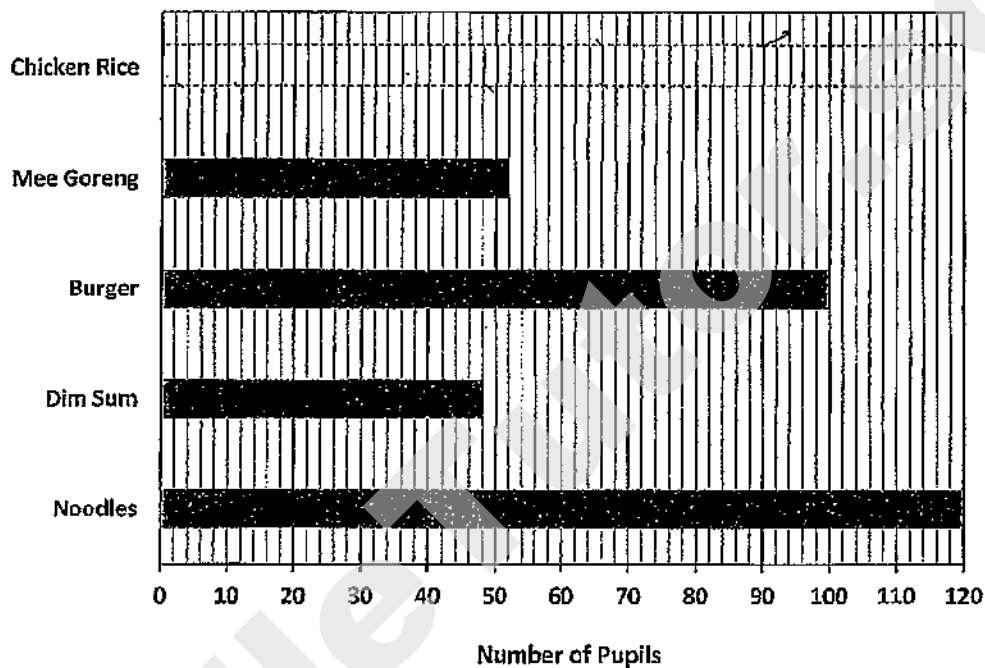
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Number of pupils	2	9	8	5

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Answer: \_\_\_\_\_ h



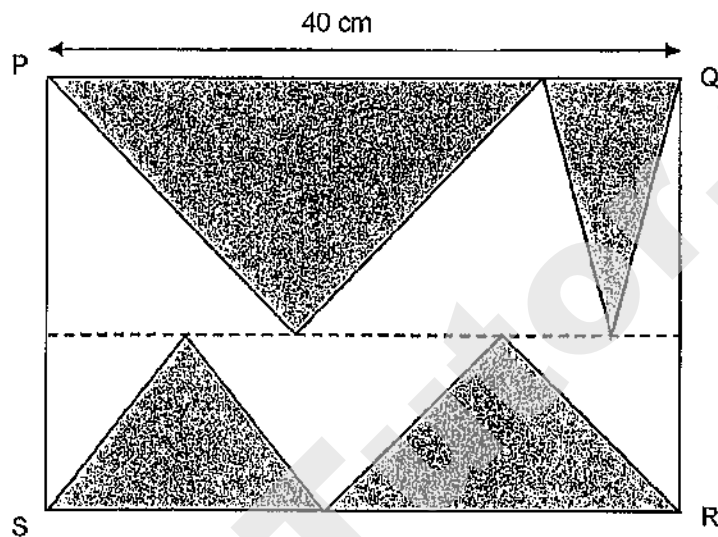
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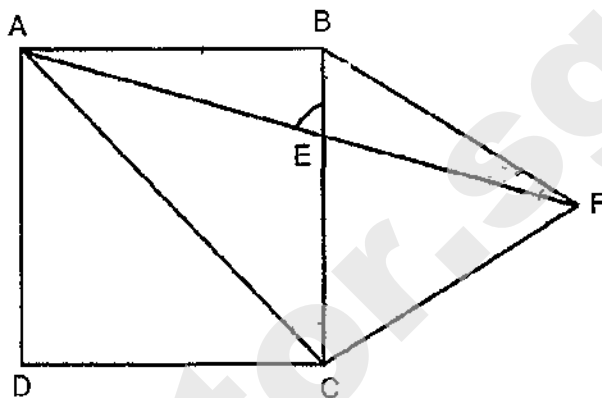
Answer: \_\_\_\_\_ cm

25. Tina packed some gift bags for charity drive. She packed 7 bottles of hand sanitizers, 4 masks and 2 granola bars into every gift bag. She used 117 more hand sanitizers than masks for all her gift bags. How many granola bars did Tina pack altogether?

Answer: \_\_\_\_\_



26. In the figure below, not drawn to scale, ABCD is a square and BCF is an equilateral triangle. AEF is a straight line. Find  $\angle AEB$ ,



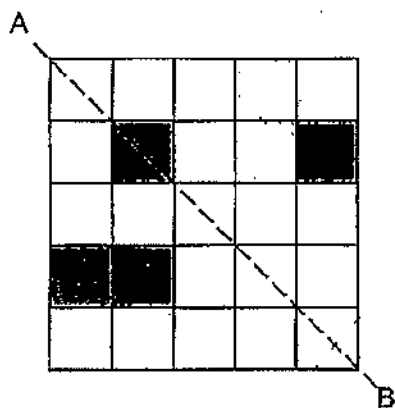
Answer: \_\_\_\_\_°

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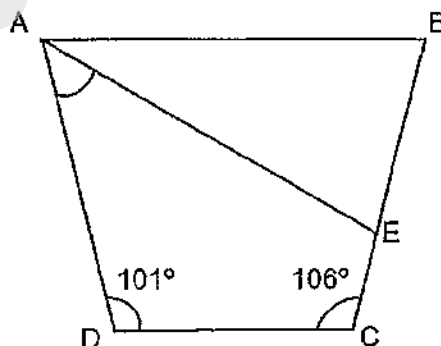
Answer: \_\_\_\_\_%



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Answer: \_\_\_\_\_°

Sub-Total :



30. Kelly has \$38. What is the greatest number of muffins she can buy?

First 3 muffins	\$3.20 each
Additional muffin	\$3 each



Answer: \_\_\_\_\_

**End of Paper 1**



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Anglo-Chinese School (Junior)/  
Anglo-Chinese School (Primary)



**COMBINED PRELIMINARY EXAMINATION (2020)**  
**PRIMARY 6**

**MATHEMATICS**

**PAPER 2**

Friday

21 August 2020

1 h 30 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	25	
Paper 2	55	
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 to the units stated. (10 marks)

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1. For every box of surgical masks he sells, Mr Lee earns \$12. An additional \$8 is given to him for every 10 boxes of surgical masks he sells. How many boxes of surgical masks must Mr Lee sell to make \$3200?

Answer: \_\_\_\_\_

2. A rectangular swimming pool 20 m wide, 60 m long and 4 m deep, contains  $800 \text{ m}^3$  of water. How much more water has to be added so that the water level is 30 cm from the top? Give your answer in cubic metres.

Answer: \_\_\_\_\_  $\text{m}^3$



3. During a sale, a departmental store gave a storewide discount of 25%. Mr Tan who is a member of the departmental store was entitled to an additional 8% discount on the discounted price. What was the total discount he enjoyed?

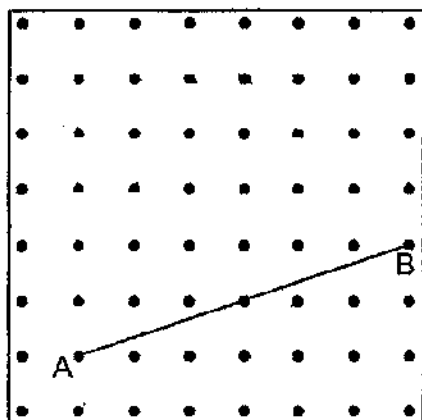
Answer: \_\_\_\_\_ %

4. The average mass of a group of children was 66.8 kg. When Mrs Pang measured and recorded the mass of these children, she wrongly recorded one child's mass as 59 kg when it should have been 95 kg. As a result, Mrs Pang calculated the average mass as 64.8 kg. How many children were there in the group?

Answer: \_\_\_\_\_



5. In the grid below, by joining dots, draw 4 more straight lines to create two isosceles triangle ABC and ABD. Label all points.





For questions 6 to 17, show your working clearly and write your answers in the in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question. (45 marks)

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6. April went to the supermarket to buy some toilet rolls for the family. Toilet rolls were sold at the prices shown below.

Big Pack	Small Pack
$\$ ( 3n - 2 )$	$\$ ( n + 3 )$

She bought 1 big pack and 2 small packs. She paid the cashier \$50 and received \$21 change. What is the value of  $n$ ?

Answer: \_\_\_\_\_ [3]



7. John wanted to save some money. He saved \$8 each day from Monday to Friday and \$16 each day on Saturday and Sunday. Starting on Thursday, how many days did John take to save \$480?

Answer: \_\_\_\_\_ [3]

8. The table below shows the time Wilson took for 4 x 10m shuttle run during his training sessions.

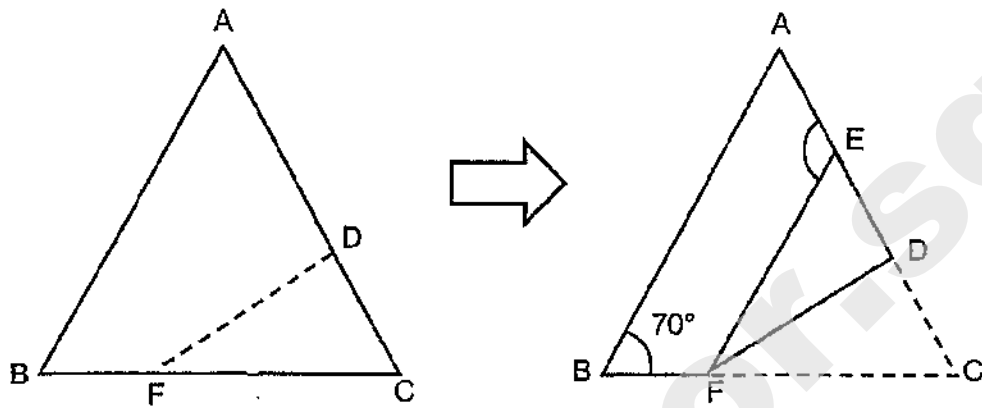
Attempt	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>
Time taken (in seconds)	13.1	12.5	11	11.8	12.2	12	11.4	?

If he wants to improve his average time taken by 0.3 seconds, what timing should he attain for his 8<sup>th</sup> attempt?

Answer: \_\_\_\_\_ [3]



9. The figure on the left, not drawn to scale, is a triangular piece of paper ABC. It is folded along the dotted line FD to obtain the figure on the right such that AB is parallel to EF. AEDC is a straight line.  $\angle ABF = 70^\circ$ . Find  $\angle AEF$ .



Answer : \_\_\_\_\_ [3]



10. The table below shows the charges for water usage.

Volume of water	Charges
First 40 m <sup>3</sup>	\$1.21 per m <sup>3</sup>
Every additional cubic metre	\$1.52 per m <sup>3</sup>

- a) The Lee family used 32 m<sup>3</sup> of water in June. How much did the Lee family pay for the water used?
- b) The Ali family used 58 m<sup>3</sup> of water in June. How much more did the Ali family pay than the Lee family for the water used in June?

Answer: (a) \_\_\_\_\_ [1]

(b) \_\_\_\_\_ [2]



11. Admission tickets for a school musical performance were sold to adults and children at different prices as shown in the table below.

	Price per ticket
Adult	\$30
Child	\$12

- (a) Mrs Goh spent an equal amount of money on the adult and child tickets. What fraction of the tickets she bought were adult tickets?
- (b) The school collected a total of \$11760 from selling tickets for the musical performance. The number of adult tickets sold was  $\frac{3}{10}$  the number of child tickets sold. How many child tickets were sold?

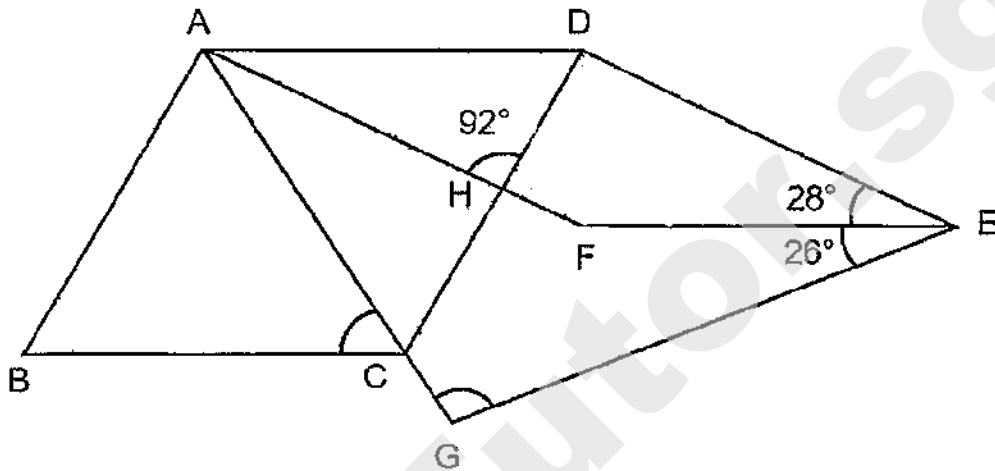
Answer: (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [2]



12. In the figure below, not drawn to scale, ABCD and ADEF are rhombuses. ACG is a straight line.  $\angle AHD = 92^\circ$ .  $\angle DEF = 28^\circ$ .  $\angle FEG = 26^\circ$ .

- (a) Find  $\angle ACB$ .  
(b) Find  $\angle AGE$ .

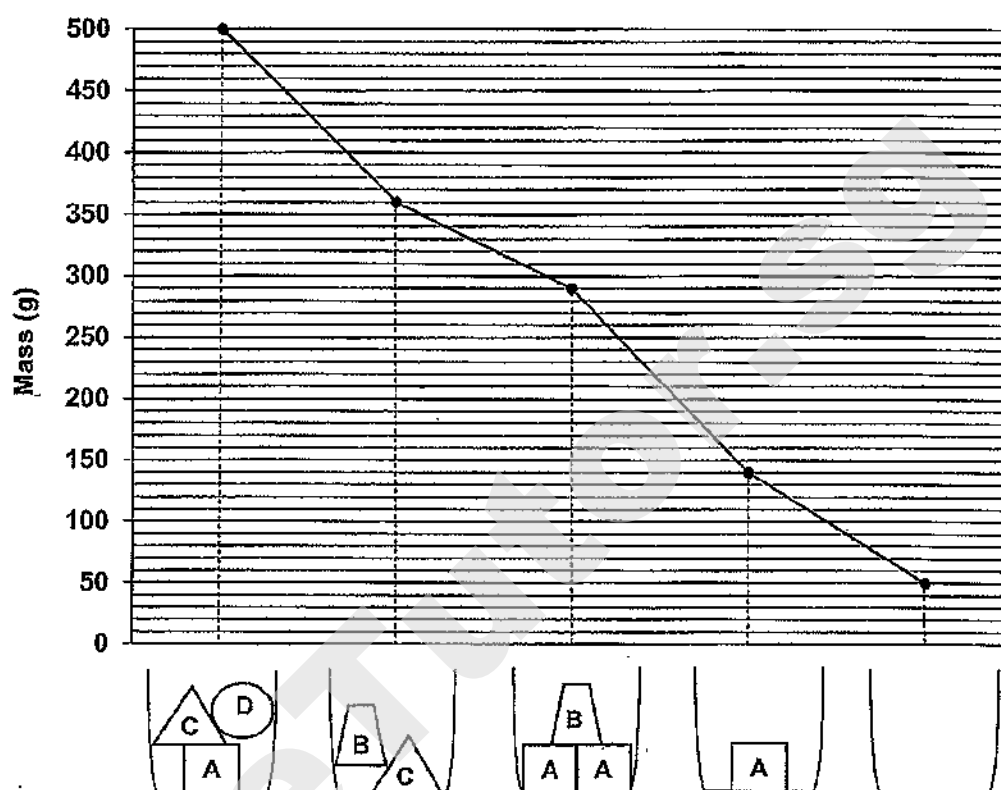


Answer: (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [3]



13. The line graph below shows the mass of a container when empty and when different combinations of objects, A, B, C and D are placed in the container.



- a) What is the mass of Object B?  
 b) What is the total mass of Objects A, B and D?

Answer: (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [2]



14. Sofie had some cupcakes. She had 72 more chocolate cupcakes than red velvet cupcakes. She had 36 fewer blueberry cupcakes than red velvet cupcakes. After selling  $\frac{1}{6}$  of the chocolate cupcakes,  $\frac{2}{3}$  of the red velvet cupcakes and  $\frac{7}{9}$  of the blueberry cupcakes, Sofie had 427 cupcakes left altogether. How many chocolate cupcakes did Sofie sell?

Answer: \_\_\_\_\_ [4]



15. Mrs Tan bought some forks and spoons in the ratio of 4 : 3. Each spoon cost 50 cents more than each fork. She spent a total of \$156 on the forks and spoons. The amount she spent on the forks was \$12 more than the amount she spent on the spoons.

- a) How much did she spend on the spoons?  
b) How many forks and spoons did she buy altogether?

Answer: (a)\_\_\_\_\_ [1]

(b)\_\_\_\_\_ [3]



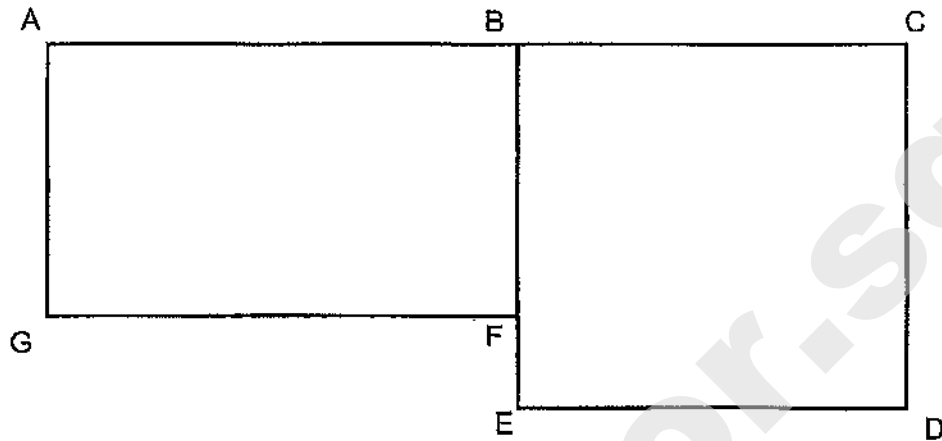
18. Jeff had a toy bicycle fixed on a straight track. He pushed the bicycle from one end of the track to the other end of the track where it stopped. The radius of the wheels is 3.5 cm and the distance between the 2 centers of the wheels is 10 cm. The length of the track is 259 cm. How many revolutions did each wheel make? (Take  $\pi = \frac{22}{7}$ )



Answer: \_\_\_\_\_ [4]



17. The figure below is made up of rectangle ABFG and square BCDE.  $AC = 52$  cm and  $EF = 8$  cm. The perimeters of rectangle ABFG and square BCDE are the same. Find the area of the figure.



Answer: \_\_\_\_\_ [5]

**End of Paper 2**



SCHOOL : ACS PRIMARY SCHOOL  
LEVEL : PRIMARY 6  
SUBJECT : MATH  
TERM : 2020 PRELIM

**PAPER 1 BOOKLET A**

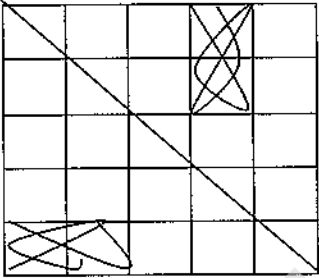
Q 1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
2	3	4	2	2	4	1	4	4	3

Q 11	Q12	Q13	Q14	Q15
1	2	3	4	1

**PAPER 1 BOOKLET B**

Q16)	2h 23 min
Q17)	6kg 35g , $6\frac{3}{5}$ , 6.35kg
Q18)	$20 \times 8 = 160$ $160 \times \frac{1}{2} = 80$ $5 \times 8 = 40$ $40 \times \frac{1}{2} = 20$ $80 - 20 = 60$
Q19)	$\frac{12}{35}$
Q20)	$\frac{5}{12}$
Q21)	66.5
Q22)	3.5h
Q23)	$200 + 120 = 320$ $320 \div 60 = 4$ $4 + 20 = 80$
Q24)	$500 \times 2 = 1000$ $1000 \div 40 = 25$



Q25)	$117 \div 3 = 39$ $39 \times 2 = 78$
Q26)	$90 + 60 = 150$ $180 - 150 = 30$ $180 - 75 = 105$ $180 - 105 = 75^\circ$
Q27)	8%
Q28)	<p>A</p>  <p>B</p>
Q29)	$47^\circ$
Q30)	$3.20 \times 3 = 9.60$ $38 - 9.60 = 28.40$ $28 \div 3 = 9$ $9 + 3 = 12$

## PAPER 2

Q1)	$12 \times 10 = 120$ $120 + 8 = 128$ $3200 \div 128 = 25$ $25 \times 10 = 250$
Q2)	364m
Q3)	$75 \div 100 = 0.75$ $0.75 \times 8 = 6$ $25 + 6 = 31\%$
Q4)	$95 - 59 = 36$ $66.8 - 64.8 = 2$ $36 \div 2 = 18$



Q5)	
Q6)	$50 - 21 = 29$ $29 - 4 = 25$ $25 \div 5 = 5$
Q7)	$8 + 8 + 16 + 16 = 48$ $480 - 48 = 432$ $432 \div 72 = 6$ $7 \times 6 = 42$ $42 + 4 = 46$
Q8)	$13.1 + 12.5 + 11 + 11.8 + 12.2 + 12 + 11.4 = 84$ $84 \div 7 = 12$ $12 - 0.3 = 11.7$ $11.7 \times 8 = 93.6$ $93.6 - 84 = 9.6$
Q9)	$\angle BFE = 180 - 70 = 110$ $\angle CFE = 180 - 110 = 70$ $\angle CFD = 70 \div 2 = 35$ $\angle FCD = \frac{180 - 70}{2} = 55$ $\angle AEF = 180 - 55 = 125^\circ$



Q10)	a) $32 \times 1.21 = \$38.72$ b) $1.21 \times 40 = 48.4$ $58 - 40 = 18$ $18 \times 1.52 = 27.36$ $48.4 + 27.36 = 75.76$ $75.76 - 38.72 = \$37.04$
Q11)	a) $1A = 30 \times 2$ $1C = 12 \times 5$ $2A = 60$ $5C = 60$ $2 + 5 = 7$ $= \frac{2}{7}$  b) $3 \times 30 = 90$ $10 \times 12 = 120$ $120 + 90 = 210$ $11760 \div 210 = 56$ $56 \times 10 = 560$
Q12)	a) $60^\circ$ b) $94^\circ$
Q13)	a) 60g b) 260g
Q14)	57
Q15)	a) \$72 b) 42
Q16)	11
Q17)	904cm <sup>2</sup>





HENRY PARK PRIMARY SCHOOL  
2020 PRELIMINARY EXAMINATION  
MATHEMATICS  
PRIMARY 6

PAPER 1  
(BOOKLET.A)

Name: \_\_\_\_\_ ( )

Parent's Signature

Class: Primary 6 \_\_\_\_\_

Marks:

Paper 1	Booklet A	20
	Booklet B	25
Paper 2		55
Total		100

Total Time for Booklets A and B: 1 hour

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.



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) and shade your answer in the Optical Answer Sheet.

(20 marks)

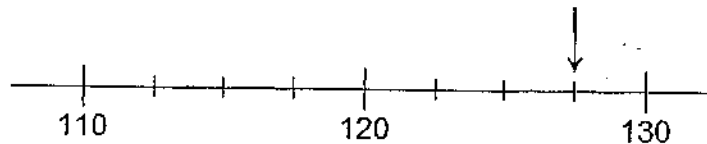
1 In 31.42, which digit is in the tenths place?

- (1) 1
- (2) 2
- (3) 3
- (4) 4

2 Express  $1\frac{3}{50}$  as a decimal.

- (1) 1.06
- (2) 1.3
- (3) 1.35
- (4) 1.6

3 Which of the following is closest to the number indicated by the arrow in the number line below?



- (1) 123
- (2) 126
- (3) 127
- (4) 129



- 4 Andre had a number of red apples, green apples and oranges in the ratio 8 : 3 : 2. What is the ratio of the number of oranges to the total number of apples that Andre had?

- (1) 2 : 11
- (2) 2 : 13
- (3) 11 : 2
- (4) 13 : 2

- 5 On a bus, 9 of the passengers were men, 15 of the passengers were women and the rest were children. Given that 20% of the passengers were children, how many passengers were there in total on the bus?

- (1) 24
- (2) 30
- (3) 96
- (4) 120

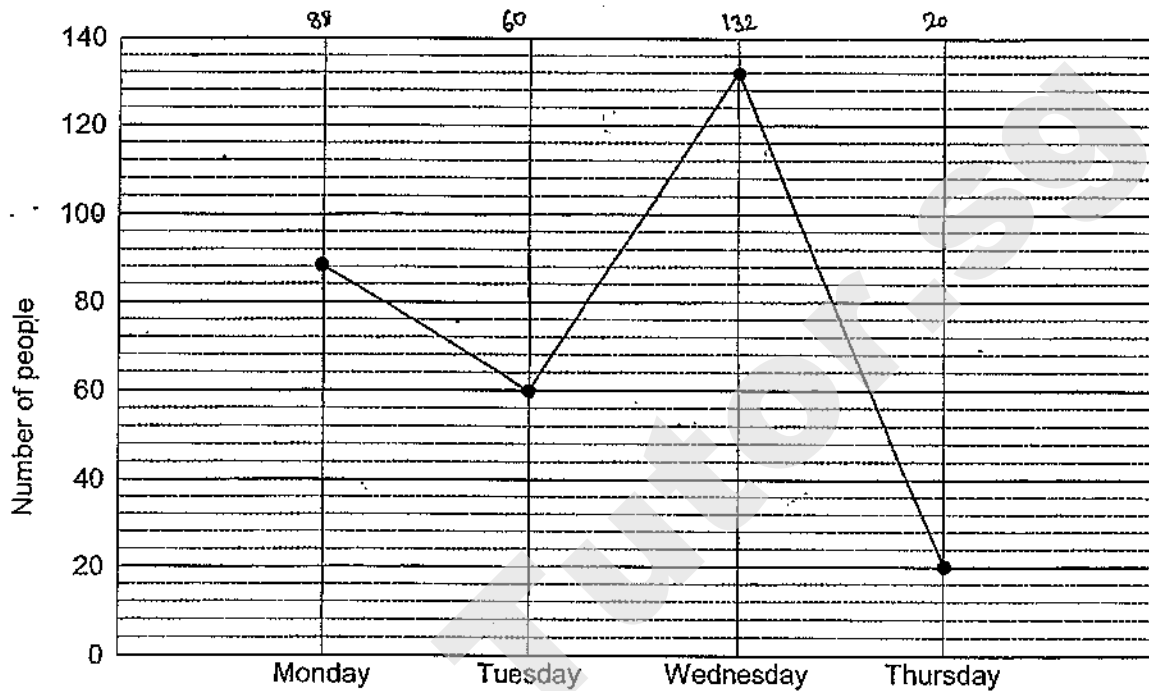
- 6 A train left Town X for Town Y. The journey took 3 h 50 min. The train arrived at Town Y at 11 05. What time did the train leave Town X?

- (1) 07 15
- (2) 08 40
- (3) 08 45
- (4) 08 55



Use the information below to answer Questions 7 and 8.

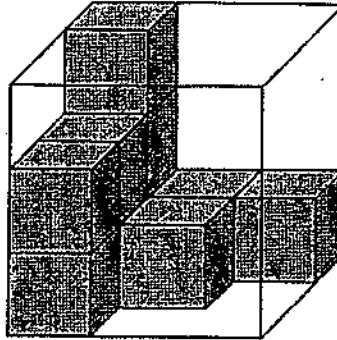
The graph shows the number of people who visited a shop from Monday to Thursday.



- 7 How many people visited the shop on Monday and Tuesday?
- (1) 142
  - (2) 144
  - (3) 148
  - (4) 154
- 8 Given that a total of 104 adults visited the shop on Wednesday and Thursday, find the ratio of the number of children to the number of adults who visited the shop on these two days.
- (1) 6 : 13
  - (2) 6 : 19
  - (3) 13 : 6
  - (4) 13 : 19



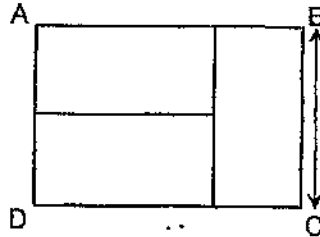
- 9 The figure below shows a plastic cubical container partly filled with unit cubes. How many more unit cubes are needed to fill the container completely?



- (1) 8  
(2) 10  
(3) 17  
(4) 19
- 10 Which one the following fractions is larger than  $\frac{1}{4}$ ?
- (1)  $\frac{6}{24}$   
(2)  $\frac{5}{21}$   
(3)  $\frac{4}{15}$   
(4)  $\frac{3}{13}$



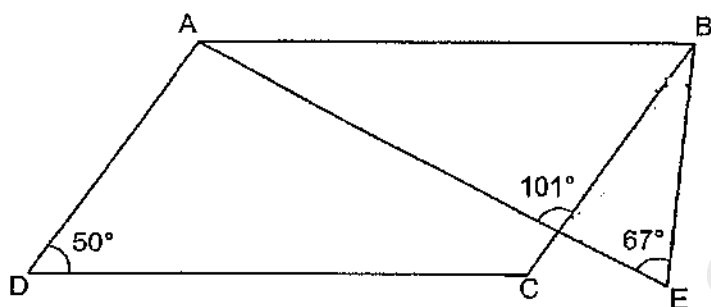
- 11 In the figure below, ABCD is made up of 3 identical rectangles. The perimeter of ABCD is 60 cm. Find the length of BC.



- (1) 6 cm  
(2) 12 cm  
(3) 18 cm  
(4) 20 cm
- 12 The lengths of two ribbons are in the ratio 5 : 3. The length of one ribbon is 30 cm longer than the other. Find the length of the shorter ribbon.
- (1) 18 cm  
(2) 45 cm  
(3) 50 cm  
(4) 75 cm
- 13 At first, Walter and Ming Ming were facing the same direction. Then, Walter turned  $225^\circ$  anti-clockwise to face South-West and Ming Ming turned  $45^\circ$  clockwise to face South-East. Which direction were Walter and Ming Ming facing at first?
- (1) East  
(2) North  
(3) South  
(4) West



- 14 In the figure below, ABCD is a parallelogram and ABE is a triangle. Find  $\angle ABE$ .



- (1)  $50^\circ$
  - (2)  $84^\circ$
  - (3)  $90^\circ$
  - (4)  $94^\circ$
- 15 The chairs in a hall were arranged in rows. Each row had the same number of chairs. William sat on one of the chairs. There were 5 chairs to his right and 5 chairs to his left. There were 4 rows of chairs in front of him and 8 rows of chairs behind him. How many chairs were there altogether in the hall?<sup>13</sup>

- (1) 120
- (2) 130
- (3) 132
- (4) 143



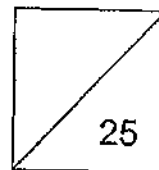


HENRY PARK PRIMARY SCHOOL  
2020 PRELIMINARY EXAMINATION  
MATHEMATICS  
PRIMARY 6

PAPER 1  
(BOOKLET B)

Name: \_\_\_\_\_ ( )

Class: Primary 6 F \_\_\_\_\_



Total Time for Booklets A and B: 1 hour

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.



Questions 16 to 20 carry 1 mark each. Write your answers in the spaces provided.  
For questions which require units, give your answers in the units stated.

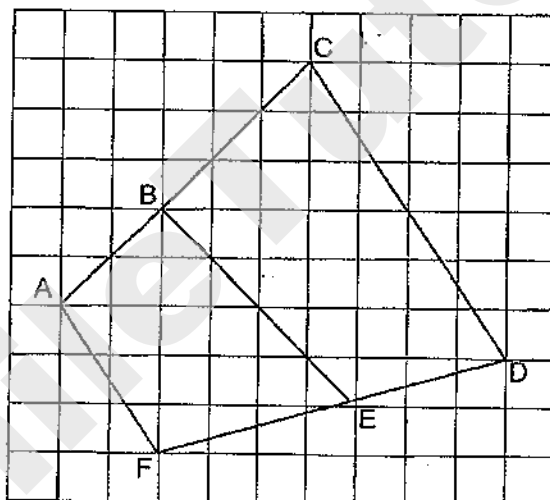
Do not write  
in this space

(5 marks)

- 16 Find the value of  $\frac{1}{2} \div \frac{1}{10}$

Ans: \_\_\_\_\_

- 17 In the figure below, name two lines that are parallel to each other.



Ans: \_\_\_\_\_ and \_\_\_\_\_

- 18 A rectangular tank measures 12 cm by 10 cm by 9 cm. What is the capacity of the tank?

Ans: \_\_\_\_\_ cm<sup>3</sup>



- 19 Express 9 minutes as a percentage of 1 hour.

Do not write  
in this space

Ans: \_\_\_\_\_ %

- 20 Find the missing number in the box.

$$8 + \boxed{?} \div 2 = 12$$

Ans: \_\_\_\_\_



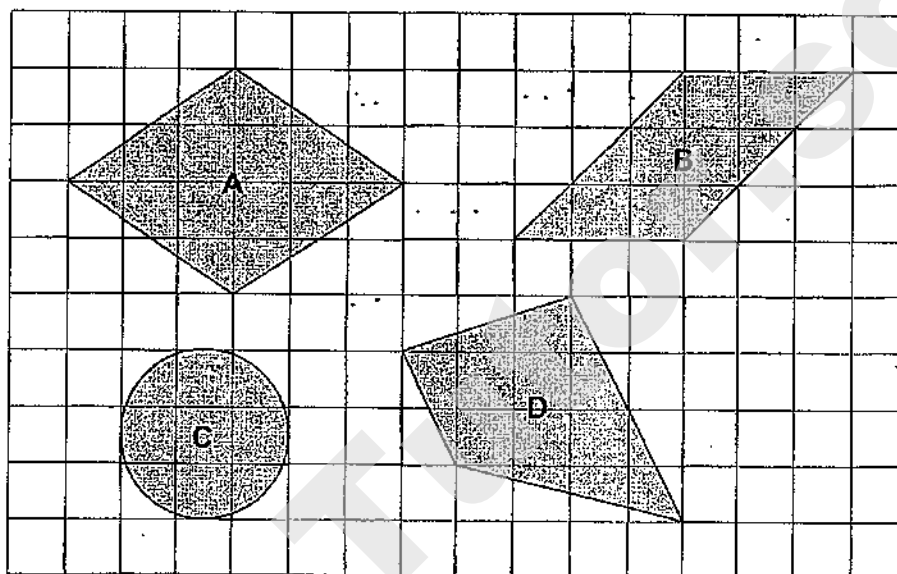


Questions 21 to 30 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

Do not write  
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(20 marks)

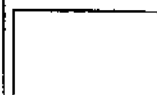
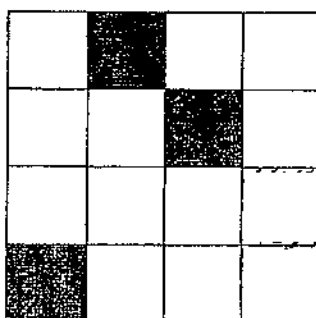
- 21 (a) Four figures, A, B, C and D are drawn on a square grid.



Name all the figures with at least one line of symmetry.

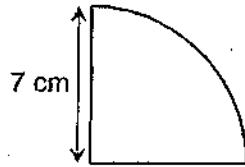
Ans: (a) \_\_\_\_\_

- (b) Shade one more square in the figure below to make it symmetrical.





- 22 The figure below shows a quarter circle of radius 7 cm. Find the perimeter of the figure. (Take  $\pi = \frac{22}{7}$ )



Do not write  
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Ans: \_\_\_\_\_ cm

- 23 Mrs Tan deposits \$4000 in XYZ Bank for one year at the interest rate of 1.4% per year. How much interest will she get at the end of one year?

Ans: \$ \_\_\_\_\_



- 24 Ellie had  $\$(y + 7)$ . Flora had \$4 less than Ellie.  
Gloria had  $\$2y$  more than Flora.

Do not write  
in this space

- (a) Find the total amount of money the three girls had in terms of  $y$ .  
Express your answer in the simplest form.
- (b) Given that the three girls had a total of \$33, find the value of  $y$ .

Ans: (a) \_\_\_\_\_

(b) \_\_\_\_\_

- 25 Ace, Ben and Charlie have some marbles. The number of marbles that Ace and Ben have is in the ratio 4 : 5. The total number of marbles Ace and Ben have is three times the number of marbles Charlie has. Given that Ace and Charlie have 350 marbles, how many more marbles does Ben have than Ace?

Ans: \_\_\_\_\_



26

There are 40 pupils in class 6J. The table below shows the number of points each pupil in the class scored in the first round of a game.

Do not write  
in this space

Points scored	0	1	2	3	4	5
Number of pupils	3	6	7	8	10	6

- (a) How many pupils in class 6J scored at least 3 points?
- (b) Pupils who did not score enough points in the first round could not take part in the second round. 16 pupils could not take part in the second round. What was the least number of points a pupil must have scored in order to take part in the second round?

Ans: (a) \_\_\_\_\_

(b) \_\_\_\_\_

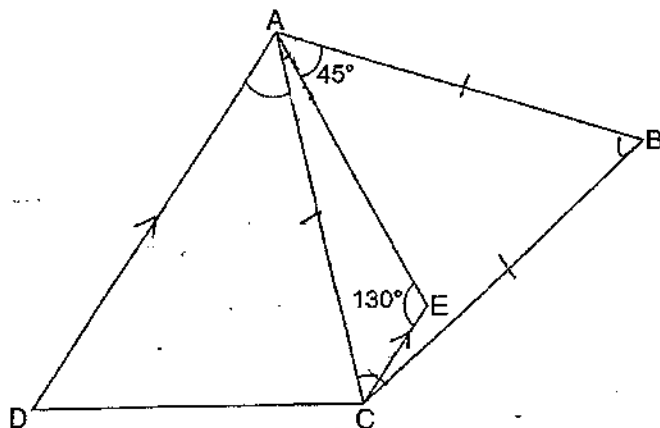
27

A piece of wire is bent to form a rectangle of area  $162 \text{ cm}^2$ . The length of the rectangle is twice its breadth. Find the breadth of the rectangle.

Ans: \_\_\_\_\_ cm



- 28 In the figure below,  $ABC$  is an equilateral triangle and  $AECD$  is a trapezium where  $AD \parallel CE$ . Find  $\angle DAC$ .



Do not write  
in this space

Ans: \_\_\_\_\_

- 29 At first, Kate placed all her beads into 30 boxes with an equal number of beads in each box. 6 of the boxes were broken and the beads in these broken boxes were then placed into the remaining 24 boxes. As a result, the number of beads in each remaining box increased by 10. What was the number of beads in each box at first?

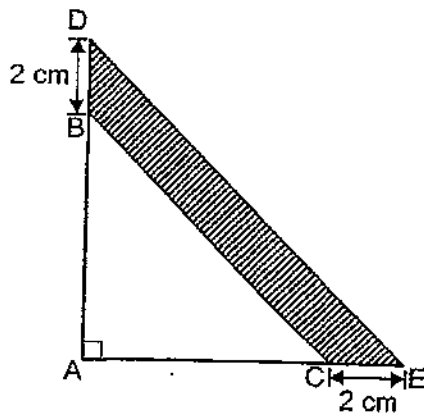
Ans: \_\_\_\_\_



30

In the figure,  $ABC$  and  $ADE$  are right-angled isosceles triangles.  
 $BD = CE = 2$  cm. The area of the shaded part is  $18$  cm<sup>2</sup>.  
 Find the length of  $AB$ .

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in this space



Ans: \_\_\_\_\_ cm





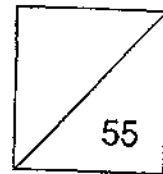
HENRY PARK PRIMARY SCHOOL  
2020 PRELIMINARY EXAMINATION  
MATHEMATICS  
PRIMARY 6

PAPER 2

Parent's Signature

Name: \_\_\_\_\_ ( )

Class: Primary 6 F \_\_\_\_\_



Time for Paper 2: 1 hour 30 minutes

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 and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

Do not write  
in this space

(10 marks)

- 1 Jane had some money. She spent \$15 and gave Lisa \$10. In the end, both Jane and Lisa had the same amount of money. How much more money did Jane have than Lisa at first?

Ans: \$ \_\_\_\_\_

- 2 Mr Aziz had some apples. He sold  $\frac{1}{5}$  of the apples on Monday and 80 apples on Tuesday. In the end, he was left with 30% of the apples he had at first. How many apples did he have in the end?

Ans: \_\_\_\_\_

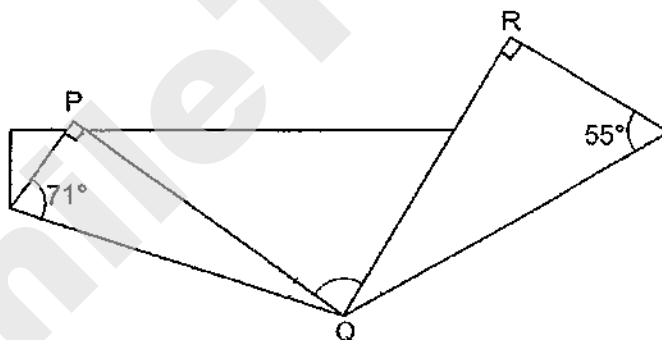


- 3 Printer A can print 300 pages in 12 minutes while Printer B can print 300 pages in 10 minutes. If both printers are used at the same time, how many pages can they print in  $\frac{1}{2}$  h?

Do not write  
in this space

Ans: \_\_\_\_\_

- 4 A rectangular piece of paper is folded at two of its corners, P and R, as shown. Find  $\angle PQR$ .



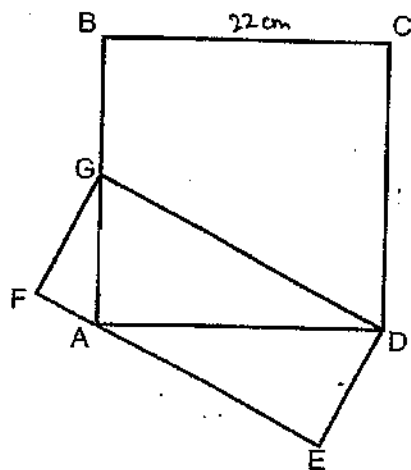
Ans: \_\_\_\_\_



5

The figure below is made up of square ABCD and rectangle DEFG. Given that  $BC = 22\text{ cm}$  and that G is the mid-point of AB, find the area of the figure.

Do not write  
in this space



Ans: \_\_\_\_\_  $\text{cm}^2$





For questions 6 to 17, show your working clearly and write your answers in the spaces provided. The number of marks available is shown in the brackets [ ] at the end of each question or part-question.

Do not write  
in this space

(45 marks)

- 6 Chin Meng earned the same amount of money each month. In October, he spent \$1070 and saved the rest. The amount he spent in November was a 30% decrease from what he spent in October. As a result, his savings for November increased by 60%. How much money did Chin Meng earn each month?

Ans: \_\_\_\_\_ [3]



- 7 The table below shows the charges for water usage by PRB company.

Do not write  
in this space

Monthly Water Usage	Price per m <sup>3</sup>
0 to 40 m <sup>3</sup>	\$1.21
More than 40 m <sup>3</sup>	\$1.52

- (a) Mdm Salimah's family used 40 m<sup>3</sup> of water in August. How much was her family charged for their water usage?
- (b) Mr Muthu spent \$103.12 on water usage in September. What was the volume of water Mr Muthu used in that month?

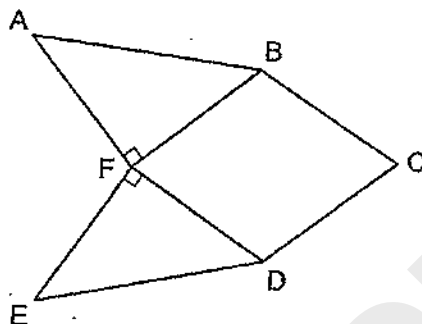
Ans: (a) \_\_\_\_\_ [1]

(b) \_\_\_\_\_ [2]



8

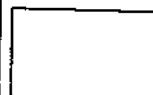
The figure below is made up of rhombus  $BCDF$  and two identical right-angled isosceles triangles,  $ABF$  and  $EFD$ . The perimeter of rhombus  $BCDF$  is  $12p$  cm and the length of  $AB$  is  $(p + 3)$  cm.



- (a) Find the perimeter of figure  $ABCDEF$  in terms of  $p$  in the simplest form.
- (b) Find the area of triangle  $ABF$  given that  $p = 6$

Ans: (a) \_\_\_\_\_ [1]

(b) \_\_\_\_\_ [2]

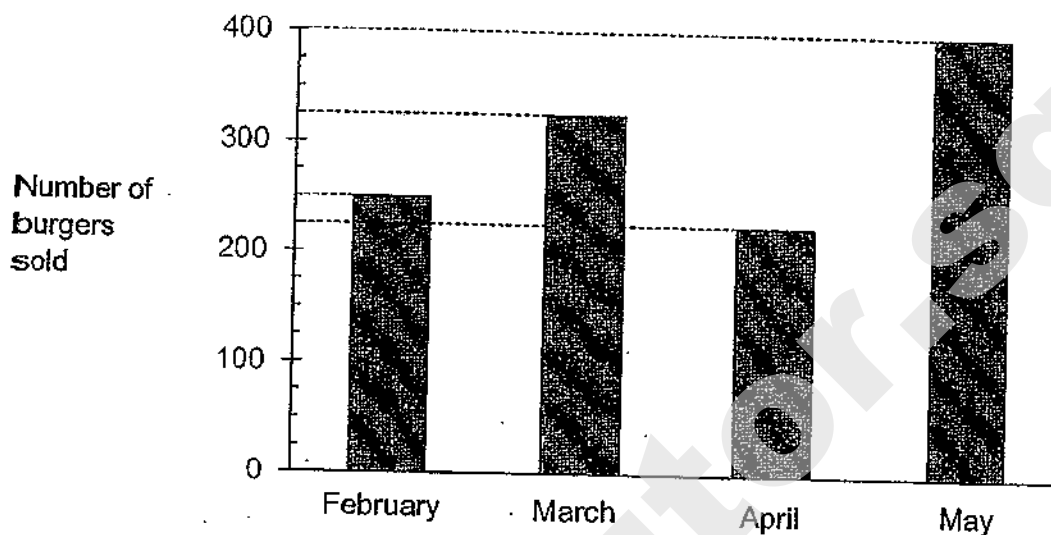




9

The graph below shows the number of burgers sold by a fast food restaurant from February to May.

Do not write  
in this space



- (a) What is the average number of burgers sold in each month from February to May?
- (b) Find the percentage increase in the number of burgers sold from February to March.

Ans: (a) \_\_\_\_\_ [1]



(b) \_\_\_\_\_ [2]



10

At Candyland, chocolates are only sold in packets of 5 pieces and lollipops are only sold in packets of 4 sticks at the prices shown below.

Do not write  
in this space

	
<p>Chocolates 5 pieces for \$1.99</p>	<p>Lollipops 4 sticks for \$0.99</p>

Judy spent \$101.34 on some chocolates and lollipops at Candyland. She put all the chocolates and lollipops into bags such that there were 3 pieces chocolates and 2 sticks of lollipops in each bag. How many sticks of lollipops did Judy buy from Candyland?

Ans: \_\_\_\_\_ [4]



- 11 In an Art Club, the number of girls is 4 times the number of boys. The number of girls who wear spectacles is  $\frac{2}{5}$  the total number of children who wear spectacles in the Art Club. Given that 170 girls and 20 boys do not wear spectacles, find the total number of girls in the Art Club.

Do not write  
in this space

Ans: \_\_\_\_\_ [4]



- 12 The table below shows the prices of admission tickets to a theme park.

Type of ticket	Price per ticket
Child	\$43
Adult	\$55
Senior Citizen	\$32

Do not write  
in this space

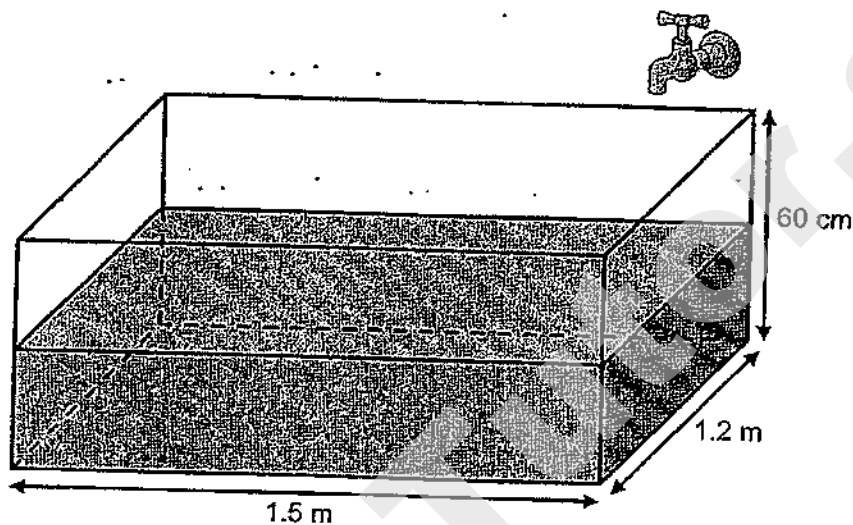
Mr Suraj paid ~~\$5005~~ <sup>\$4705</sup> for admission tickets to the theme park for a group of tourists.  $\frac{2}{3}$  of the tourists were children. The remaining tourists were adults and senior citizens in the ratio 5 : 2. How many children were there in the group of tourists?

Ans: \_\_\_\_\_ [3]



- 13 At first, a rectangular tank measuring 1.5 m by 1.2 m by 60 cm was half-filled with water as shown below. A tap was then turned on <sup>for</sup> half an hour to allow water to flow into the tank. In the end, the tank was  $\frac{3}{5}$ -filled. How many litres of water flowed from the tap per minute?

Do not write  
in this space

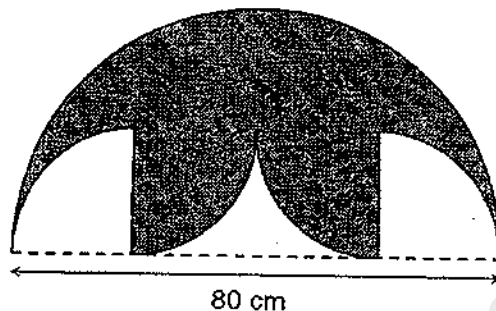


Ans: \_\_\_\_\_ [3]



- 14 The outline of the shaded figure below is formed by a semicircle, four identical quarter circles and two straight lines.

Do not write  
in this space



- (a) Find the area of the shaded figure.  
(b) Find the perimeter of the shaded figure.

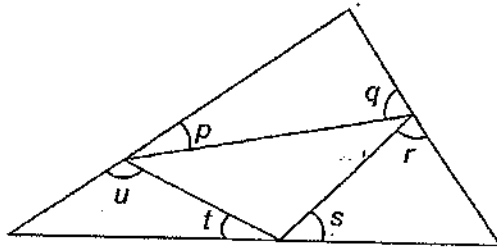
(Take  $\pi = 3.14$ )

Ans: (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [3]

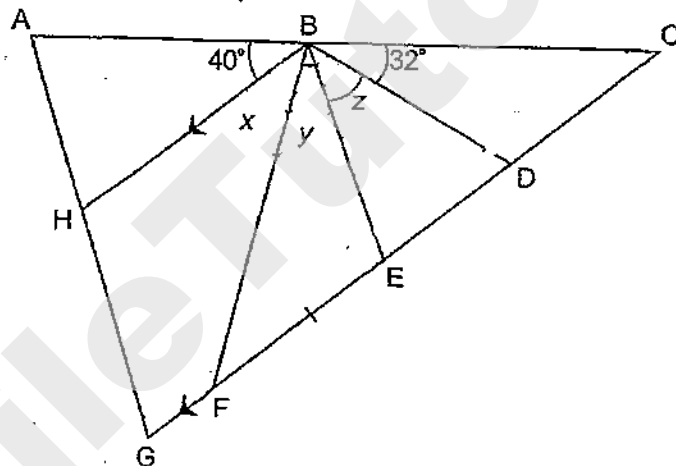


- 15 (a) In the figure below, find the sum of  $\angle p$ ,  $\angle q$ ,  $\angle r$ ,  $\angle s$ ,  $\angle t$  and  $\angle u$ .



Ans: (a) \_\_\_\_\_ [1]

- (b) The figure below is not drawn to scale.  
In the figure, AGC is a triangle where  $BH \parallel EG$  and  $BD = BE = EF$ .



- (i) Find  $\angle z$ .

Ans: \_\_\_\_\_ [2]

- (ii) Each of the statements below is either true, false or not possible to tell from the information given. For each statement, put a tick ( $\checkmark$ ) to indicate your answer.

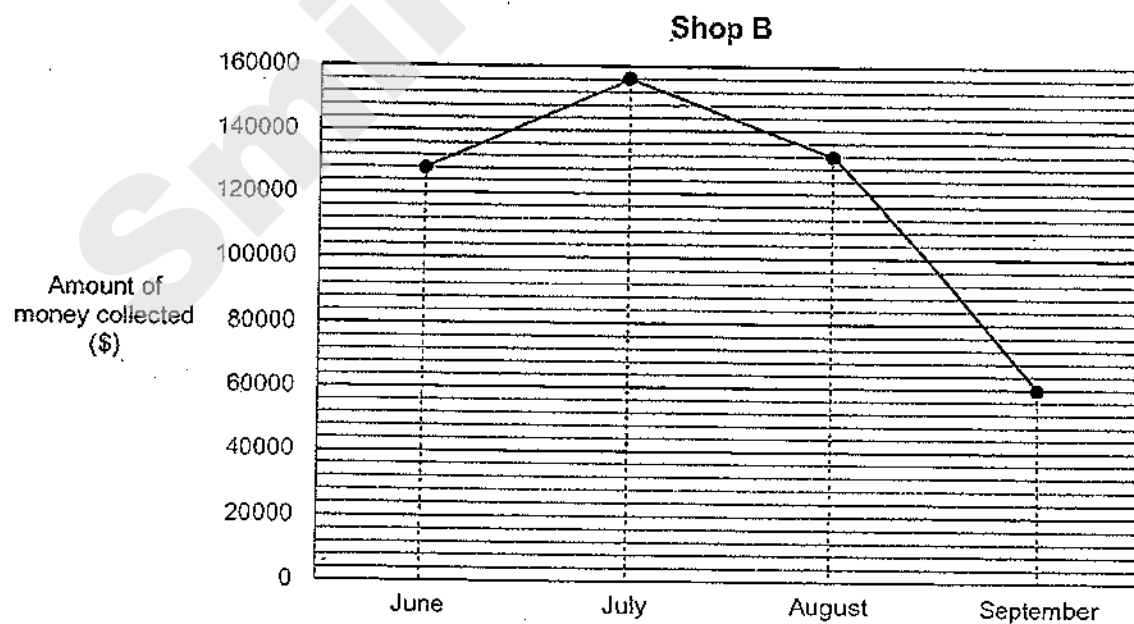
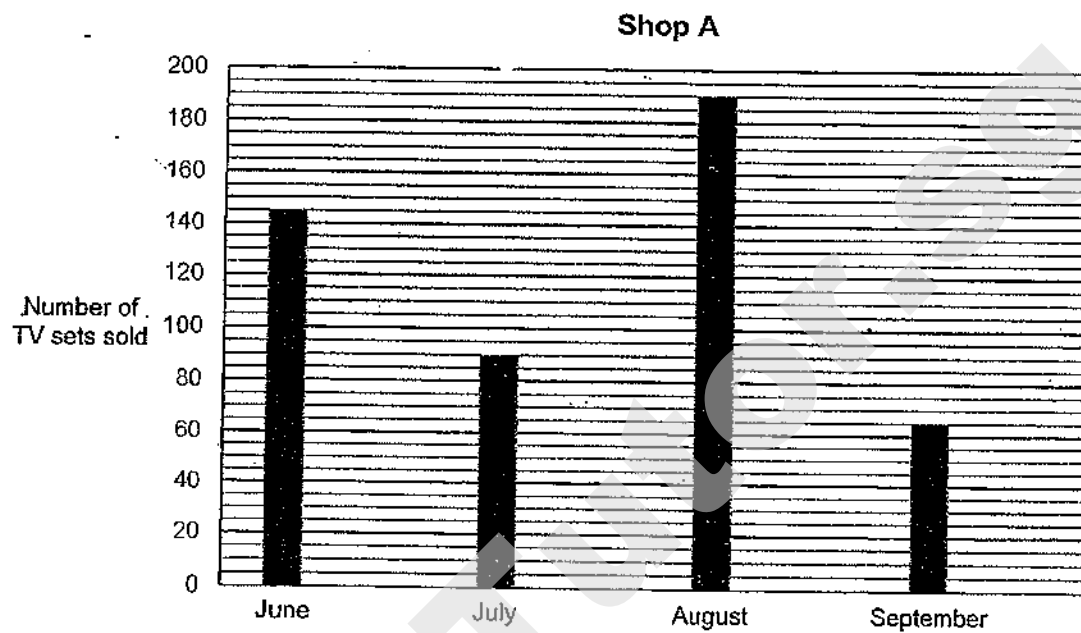
Statement	True	False	Not possible to tell
$\angle x = \angle y = \angle z$			
ABEG is a trapezium.			
$\angle AHB = \angle AGC$			

[2]



- 16 The graphs below show the number of television sets sold by Shop A and the amount of money collected by Shop B from the sale of television sets from June to September.

Do not write  
in this space





- (a) Given that Shop B sold each television set at a fixed price of \$1200, did it sell more, fewer or an equal number of television sets than Shop A in the month of July? Show your working clearly.

Do not write  
in this space

- (b) Shop A had a promotion in the month of August where each television set was sold at 30% discount. Given that Shop A collected \$34 250 more than Shop B in August, find the amount of discount given by Shop A for each television set sold.

Ans: (a) \_\_\_\_\_ [1]

(b) \_\_\_\_\_ [3]



17

Cedric used some sticks to form figures that follow a pattern. The first four figures are shown below.

Do not write  
in this space



Figure 1



Figure 2



Figure 3



Figure 4

- (a) The table below shows the number of sticks for the first four figures. Complete the table for Figure 5.

Figure number	Number of sticks
1	3
2	7
3	10
4	14
5	

[1]

- (b) How many sticks are there in Figure 28?
- (c) Cedric used 2327 sticks to form a figure. Which Figure number did he form?

Ans: (b) \_\_\_\_\_ [2]

(c) \_\_\_\_\_ [2]

End of Paper 2



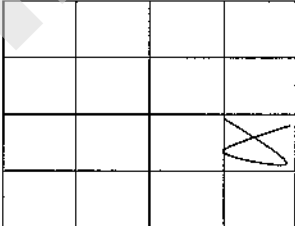
SCHOOL : HERNRY PARK PRIMARY SCHOOL  
 LEVEL : PRIMARY 6  
 SUBJECT : MATH  
 TERM : 2020 PRELIM

**PAPER 1 BOOKLET A**

Q 1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
4	1	3	1	2	1	3	1	3	3

Q 11	Q12	Q13	Q14	Q15
2	2	1	2	4

**PAPER 1 BOOKLET B**

Q16)	5
Q17)	AF and CD
Q18)	1080 cm <sup>3</sup>
Q19)	15%
Q20)	8
Q21)	a) A and C
Q21)	b) <div style="text-align: center;">  </div>
Q22)	25cm
Q23)	\$56
Q24)	a) $(5y + 13)$ \$4
Q25)	50
Q26)	a) 24 b) 3



Q27)	35°
Q28)	40
Q29)	40
Q30)	8cm

## PAPER 2

Q1)	$10 + 10 + 15 = \$35$
Q2)	$30/100 = 3/10$ $1/5 = 2/10$ $1 - 2/10 - 3/10 = 5/10$ $80 \times 2 = 160$ $80 \times 2 = 160$ $3/10 \times 160 = 48$
Q3)	$\frac{1}{2} h = 30\text{min}$ $300 \div 12 = 25$ $300 \div 10 = 30$ $30 \times 30 + 25 \times 30 = 1650$
Q4)	$180 - 55 - 90 = 35$ $180 - 71 - 90 = 19$ $180 - 19 - 19 - 35 = 72^\circ$
Q5)	$22 \div 2 = 11$ $\frac{1}{2} \times 11 \times 22 = 121$ $22 \times 22 = 484$ $484 + 121 = 605\text{cm}^2$
Q6)	$321 \div 60 = 5.35$ $5.35 \times 100 = 535$ $535 + 100 = \$1605$
Q7)	a) $40 \times 1.21 = \$48.40$ b) $10312 - 48.4 = 54.72$ $54.72 \div 1.52 = 36$ $36 + 40 = 76\text{m}^3$
Q8)	a) $12p \div 4 = 3p$ $3p \times 4 + (p+3) \times 2 = 12p + 2p + 6 = (14p + 6)\text{cm}$ b) $3p = 3 \times 6 = 18$ $\frac{1}{2} \times 18 \times 18 = 162\text{cm}^2$



Q9)	$a) 250 + 325 + 225 + 400 = 1200$ $1200 \div 4 = 300$ $b) 325 - 250 = 75$ $75/250 \times 100\% = 30\%$
Q10)	$10 \times 3 = 30$ $10 \times 2 = 20$ $20 \div 4 = 5$ $30 \div 5 = 6$ $6 \times 1.99 + 5 \times 0.99 = 16.89$ $101.34 \div 16.89 = 6$ $6 \times 20 = 120$
Q11)	$20X - 170 = 2/5 \times (20X - 170) + (5X - 20)$ $20X - 170 = 2/5 \times (25X - 190)$ $20X - 170 = 10X - 76$ $20X = 10X + 94$ $10X = 94$ $20X = 94 \times 2 = 188$
Q12)	$(14 \times 43) + (5 \times 55) + (2 \times 32) = 941$ $4750 \div 941 = 51$ $5 \times 14 = 70$
Q13)	$3/5 \times 60 \times 150 \times 120 = 648000$ $648000 - 540000 = 108000$ $108000 \text{cm}^3 = 108\ell$ $108 \div 30 = 3.6\ell$
Q14)	$a) 80 \div 4 = 20$ $20 \times 2 = 40$ $20 \times 40 = 800$ $\frac{1}{2} \times 3.14 \times 40 \times 40 = 2512$ $2512 - 800 = 1712 \text{cm}^2$ $b) 3.14 \times 40 = 125.6$ $125.6 + 20 + 20 = 165.6$ $125.6 + 165.6 = 291.2 \text{cm}$
Q15)	$a) 180 \times 3 = 540$ $540 - 180 = 360^\circ$ $b) i) 180 - 32 - 40 = 108$ $180 - 108 = 72$ $Z = 180 - 72 - 72 = 36^\circ$



	ii) Not True
Q16)	a) $156000 \div 1200 = 130$ More b) $132000 + 34250 = 166250$ $166250 \div 70 \times 30 = 71250$ $71250 \div 190 = \$375$
Q17)	a) 17 b) $3 + 4 = 7$ $21 (7 \times 11) = 98$ c) $2327 \div 7 = 332 \text{ R}3$ $332 \times 2 = 664$ $664 + 1 = 665$



# METHODIST GIRLS' SCHOOL (PRIMARY)

Founded in 1887



## PRELIMINARY EXAMINATION 2020 PRIMARY 6 MATHEMATICS

### PAPER 1 BOOKLET A

Total Time for Booklets A and B: 1 hour

#### INSTRUCTIONS TO CANDIDATES

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

Follow all instructions carefully.

Answer all questions.

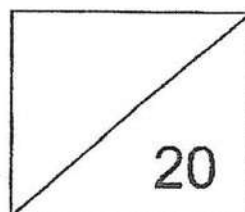
Shade your answers in the Optical Answer Sheet (OAS) provided.

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

Name: \_\_\_\_\_ (    )

Class: Primary 6. \_\_\_\_\_

Date: 21 August 2020



This booklet consists of 7 printed pages including this page.



SmileTutor.sg



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 the value of  $5b - 4 + 2b$  when  $b = 6$ ?
- (1) 14
  - (2) 18
  - (3) 22
  - (4) 38
- 2 What is the value of  $100 \div 4000$ ?
- (1) 40
  - (2) 25
  - (3) 0.4
  - (4) 0.025
- 3 There are 60 cookies in a box. 36 of them are chocolate cookies and the rest are raisin cookies. What is the ratio of the chocolate cookies to the total number of cookies in the box?
- (1) 2 : 5
  - (2) 5 : 2
  - (3) 3 : 5
  - (4) 5 : 3
- 4 Express  $1\frac{5}{8}$  as a decimal.
- (1) 0.625
  - (2) 1.58
  - (3) 1.625
  - (4) 2.60



5 Find the value of  $\frac{2}{9} \div \frac{5}{12}$ .

(1)  $\frac{8}{15}$

(2)  $\frac{15}{8}$

(3)  $\frac{5}{54}$

(4)  $\frac{54}{5}$

6 Find the average of this set of numbers.

33 , 27 , 0 , 45 , 15

(1) 60

(2) 40

(3) 30

(4) 24

7 Mr Lim bought 20 marbles for \$5. How much did one marble cost?

(1) \$ 0.25

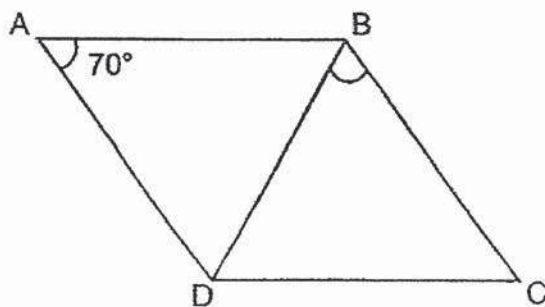
(2) \$ 0.40

(3) \$ 2.50

(4) \$ 4.00

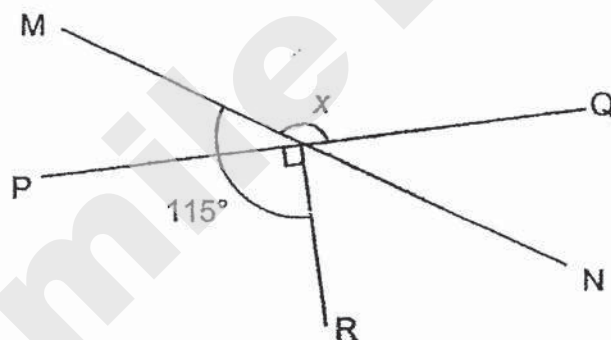


- 8 ABCD is a rhombus.  $\angle DAB = 70^\circ$ . Find  $\angle CBD$ .



- (1)  $35^\circ$
- (2)  $55^\circ$
- (3)  $70^\circ$
- (4)  $110^\circ$

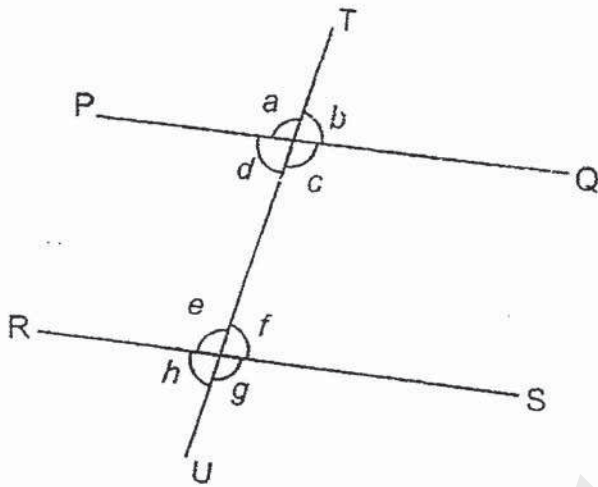
- 9 MN and PQ are straight lines. Find  $\angle x$ .



- (1)  $25^\circ$
- (2)  $65^\circ$
- (3)  $115^\circ$
- (4)  $155^\circ$



- 10 In the figure below, PQ is parallel to RS and TU is a straight line.



Which one of the following statements is true?

- (1)  $\angle a + \angle c = \angle b + \angle d$
  - (2)  $\angle a + \angle e = \angle c + \angle g$
  - (3)  $\angle f + \angle g = \angle a + \angle c$
  - (4)  $\angle c + \angle e = \angle d + \angle f$
- 11 In a school carnival, 25% of the participants were adults and the rest were children. 40% of the children were girls. What percentage of the participants were boys?
- (1) 10%
  - (2) 35%
  - (3) 45%
  - (4) 60%



- 12 The advertisement below is displayed outside a furniture shop.  
How much is the discount for the table?

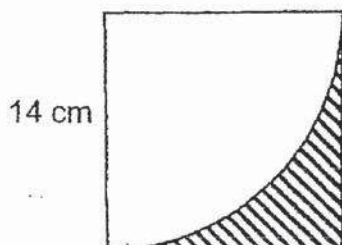


- (1) \$168  
(2) \$252  
(3) \$280  
(4) \$1050
- 13 A bag contains beads of three colours.  $\frac{1}{4}$  of the beads are blue.  
The ratio of the number of red beads to the number of green beads is 4 : 5.  
What fraction of the total beads are the red beads?

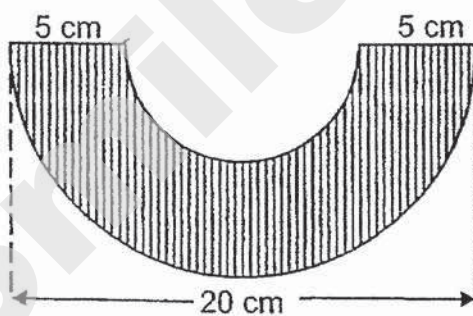
- (1)  $\frac{1}{3}$   
(2)  $\frac{2}{5}$   
(3)  $\frac{4}{9}$   
(4)  $\frac{5}{12}$



- 14 The figure shows a square and a quarter circle. Find the perimeter of the shaded part. Take  $\pi = \frac{22}{7}$ .



- (1) 22 cm  
 (2) 42 cm  
 (3) 50 cm  
 (4) 116 cm
- 15 The figure is made up of 2 semi-circles. Find the area of the shaded figure in terms of  $\pi$ .



- (1)  $12\frac{1}{2} \pi \text{ cm}^2$   
 (2)  $37\frac{1}{2} \pi \text{ cm}^2$   
 (3)  $50 \pi \text{ cm}^2$   
 (4)  $75 \pi \text{ cm}^2$

(Go on to Booklet B)



# METHODIST GIRLS' SCHOOL (PRIMARY)

Founded in 1887



## PRELIMINARY EXAMINATION 2020 PRIMARY 6 MATHEMATICS

### PAPER 1 BOOKLET B

Total Time for Booklets A and B: 1 hour

#### 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: 21 August 2020

Paper 1 Booklet A	/ 20
Paper 1 Booklet B	/ 25
Paper 2	/ 55
<b>TOTAL</b>	<b>/ 100</b>

Parent's Signature: \_\_\_\_\_

This booklet consists of \_ printed pages including this page.



Questions 16 to 20 carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (5 marks)

Do not write  
in this space

- 16 Write three million, forty thousand and one in figures.

Ans: \_\_\_\_\_

- 17 The number of people in the hall, when rounded to the nearest hundred is 3 000. What is the smallest possible number of people in the hall?

Ans: \_\_\_\_\_

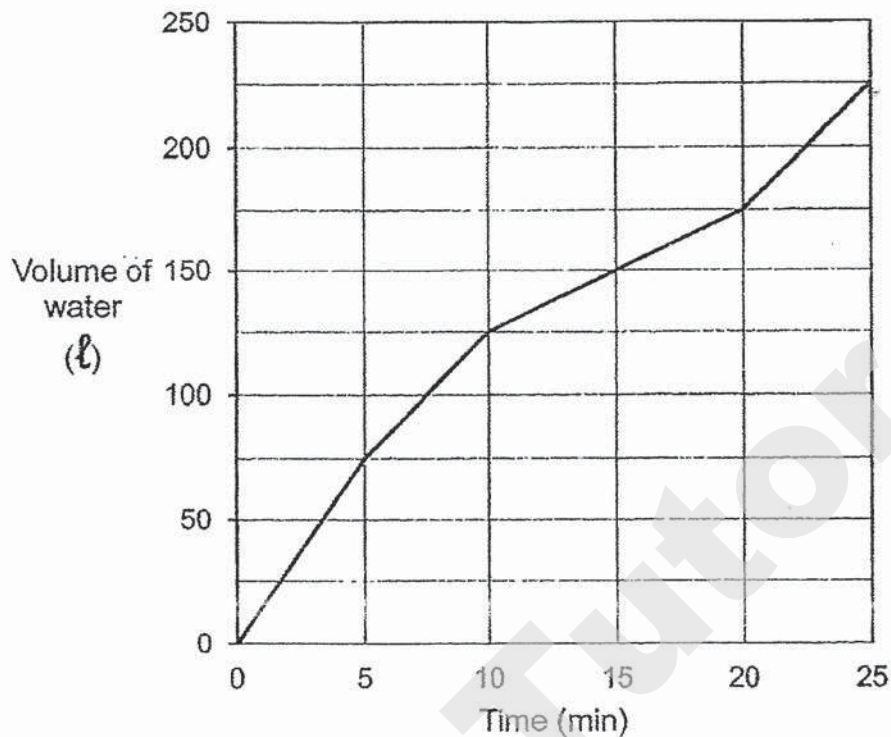
- 18 Sarah bought 10 m of lace. She cut the lace equally into smaller pieces. Each smaller piece was  $\frac{2}{5}$  m long. How many smaller pieces of lace were there?

Ans: \_\_\_\_\_



- 19 Water flowed into an empty tank. The tank was completely filled with water at the end of 25 min.

Do not write  
in this space



What fraction of the tank was filled with water at the end of 15 min?  
Give your answer in the simplest form.

Ans: \_\_\_\_\_

- 20 A hawker makes about 600 fish balls every 12 minutes. At this rate, how many fish balls can he make in one minute?

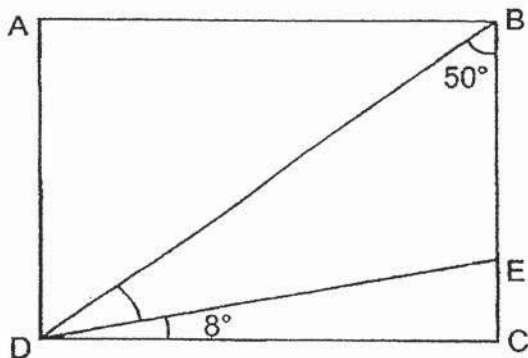
Ans: \_\_\_\_\_



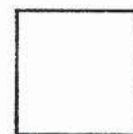
Questions 21 to 30 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (20 marks)

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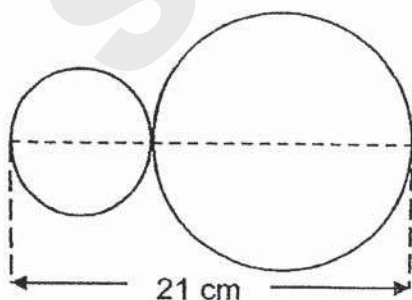
- 21 In the figure, ABCD is a rectangle and  $\angle EDC = 8^\circ$ . Find  $\angle BDE$ .



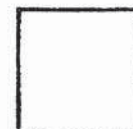
Ans: \_\_\_\_\_ °



- 22 A piece of wire was bent to form the following figure which was made up of 2 circles. The diameter of the big circle to the diameter of the small circle is in the ratio of 2 : 1. There was 4 cm of the wire left after making the figure. Find the total length of the wire. (Take  $\pi = \frac{22}{7}$ )



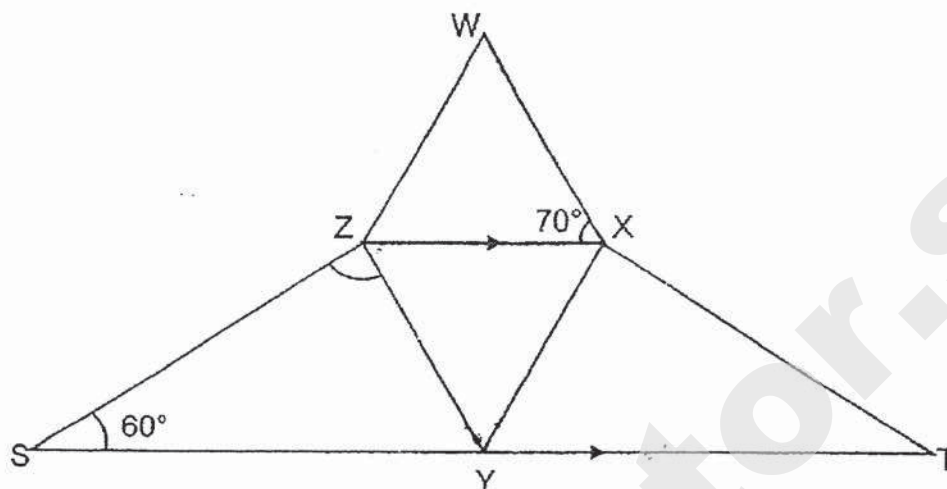
Ans: \_\_\_\_\_ cm



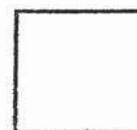


- 23 In the figure below,  $WXYZ$  is a rhombus and  $ZXTS$  is a trapezium. Find  $\angle SZY$ .

Do not write  
in this space



Ans: \_\_\_\_\_°

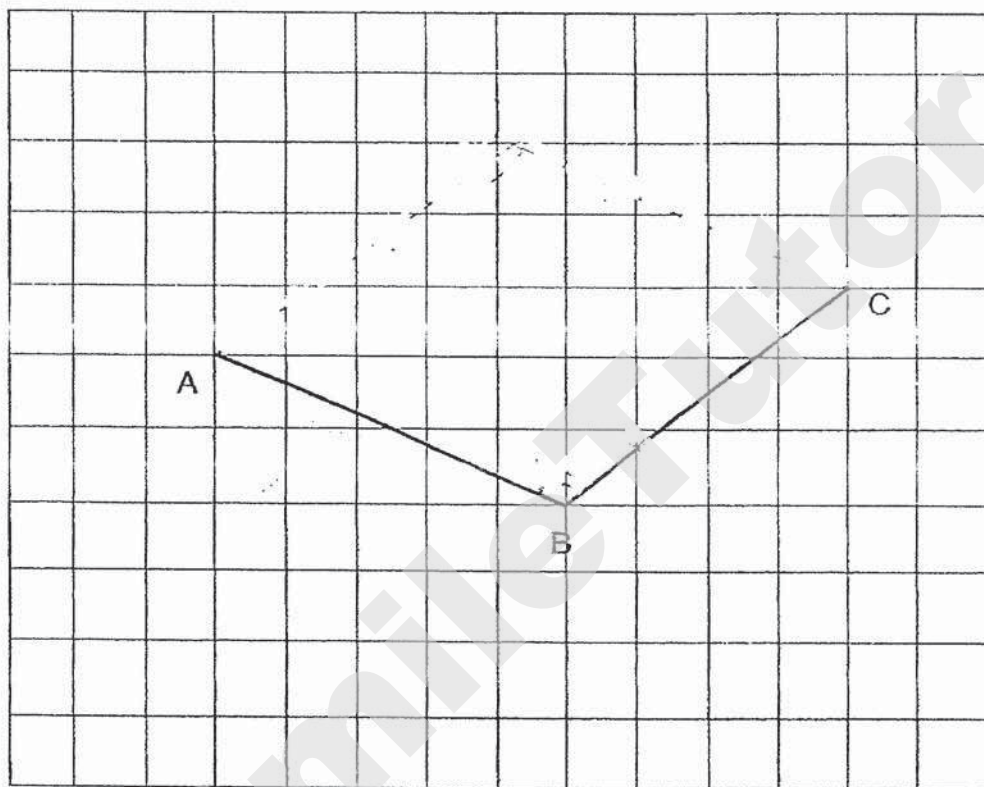




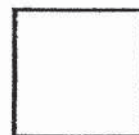
24 AB and BC are two sides of a rhombus ABCD.

- (a) Measure  $\angle ABC$ .
- (b) Complete the rhombus by drawing the other two sides, AD and DC, in the square grid below.

Do not write  
in this space



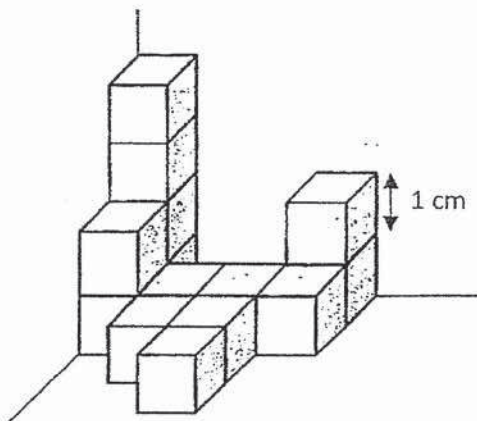
Ans: (a) \_\_\_\_\_°





Do not write  
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- 25 The solid below is formed by identical cubes of side 1-cm.  
How many **more** of such cubes are needed to form a 4-cm cube?

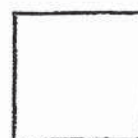


Ans: \_\_\_\_\_



- 26 For every \$4.50 that Jane saved in her piggy bank, her mother would give her an additional 50 cents. When Jane had \$100 in her savings, how much of it was given by her mother?

Ans: \$ \_\_\_\_\_

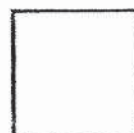




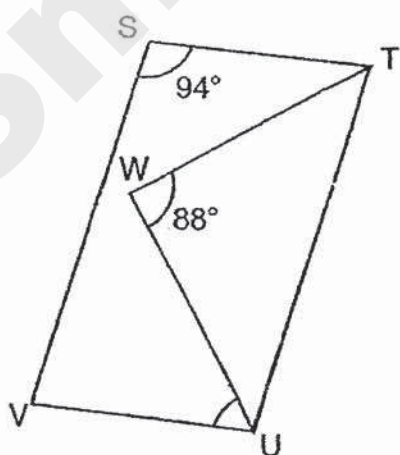
- 27 Serene bought  $2n$  packets of sweets. Each packet contained 15 sweets. After eating 11 sweets, how many sweets had she left? Express the answer in terms of  $n$  in the simplest form.

Do not write  
in this space

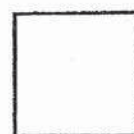
Ans: \_\_\_\_\_



- 28 STUV is a parallelogram,  $\angle VST = 94^\circ$  and  $WU = WT$ .  $\angle UWT = 88^\circ$ . Find  $\angle VUW$ .



Ans: \_\_\_\_\_°





- 29 A bus has a seating capacity of either 36 adults or 54 children. After 4 adults and 39 children have boarded the bus, at most, how many more children can still board the bus?

Do not write  
in this space

Ans: \_\_\_\_\_

- 30 The table below shows the number of goals scored by each basketball player of a basketball club.

No. of goals scored by each player	0	1	2	3	4
Number of players	8	15	7	?	6

75% of the players scored fewer than 3 goals. How many players scored 3 goals?

Ans: \_\_\_\_\_

End of Paper 1



# METHODIST GIRLS' SCHOOL (PRIMARY)

Founded in 1887



## PRELIMINARY EXAMINATION 2020 PRIMARY 6 MATHEMATICS

### PAPER 2

Duration: 1h 30 min

#### INSTRUCTIONS TO CANDIDATES

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

Follow all instructions carefully.

Answer all questions.

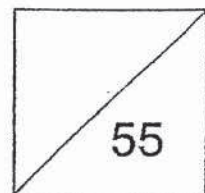
Write your answers in this booklet.

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

Name: \_\_\_\_\_ (    )

Class:    Primary 6. \_\_\_\_\_

Date:    21 August 2020



Parent's Signature: \_\_\_\_\_

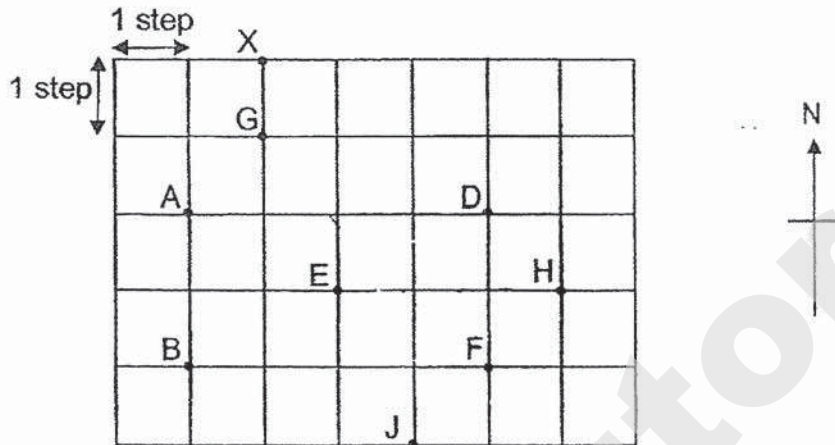
This booklet consists of **15** printed pages including this page.



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)

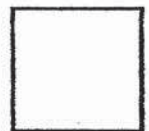
Do not write in this space

- 1 Study the diagram below. Nine landmarks on a street directory are shown in the square grid below.



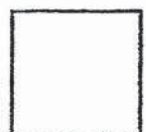
- (a) Peter was standing at E. He walked 1 step North and 2 steps East. At which landmark would he be at?
- (b) John was at one of the landmarks. He was facing East. He turned  $45^\circ$  clockwise and faced F. At which landmark was John at?

Ans: (a) \_\_\_\_\_  
(b) \_\_\_\_\_



- 2 Mr Tan paid \$126 for 45 markers. If each marker was \$0.80 cheaper, how many more markers could he buy with the same amount of money?

Ans: \_\_\_\_\_





- 3 Jane puts her collection of stamps onto 3 albums. The first album has 20 stamps. The second album has  $4k$  stamps and the third album has  $(4+k)$  stamps.

Each of the statements below is either true, false or not possible to tell from the information given. For each statement, put a tick ( $\checkmark$ ) to indicate your answers.

Statement	True	False	Not possible to tell
The first album has the most number of stamps.			
The third album has fewer stamps than the second album.			
The total number of stamps in the 3 albums is $(5k + 24)$ .			

Do not write  
in this space

☐

- 4 Machine A can produce 200 toys in 1 hour. Machine B can produce 10% fewer toys than Machine A in an hour. How long will it take to produce 2280 toys if both machines are used at the same time?

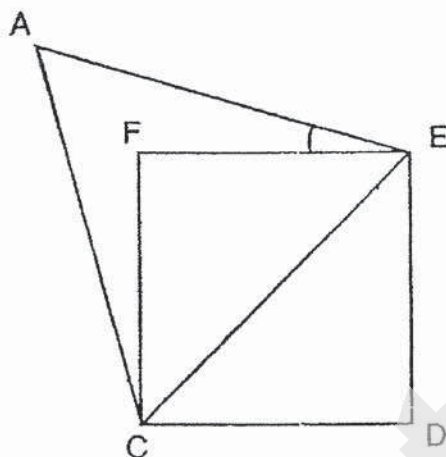
Ans: \_\_\_\_\_

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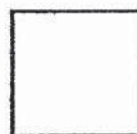


- 5 In the diagram below, CDEF is a square and ACE is an equilateral triangle. Find  $\angle AEF$ .

Do not write  
in this space



Ans: \_\_\_\_\_°

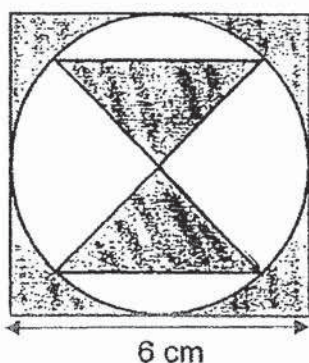




For questions 6 to 17, show your working clearly and write your answers in the space provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question. (45 marks)

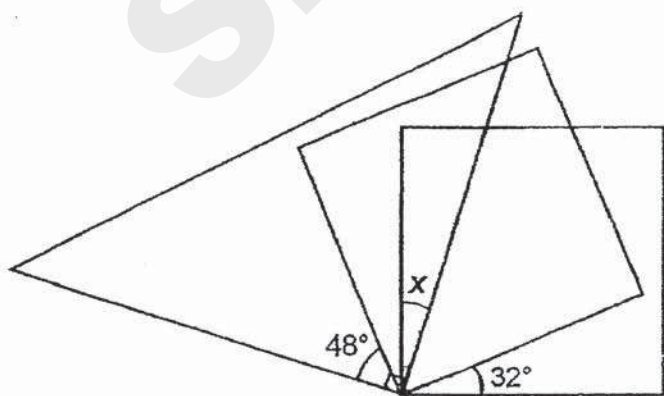
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- 6 The figure is formed by a square, a circle and 2 identical isosceles triangles. The length of square is 6 cm. What is the area of the shaded part? (Take  $\pi = 3.14$ )



Ans: \_\_\_\_\_ [3]

- 7 The figure, not drawn to scale, shows 2 identical squares and a right-angle triangle. Find  $\angle x$ .

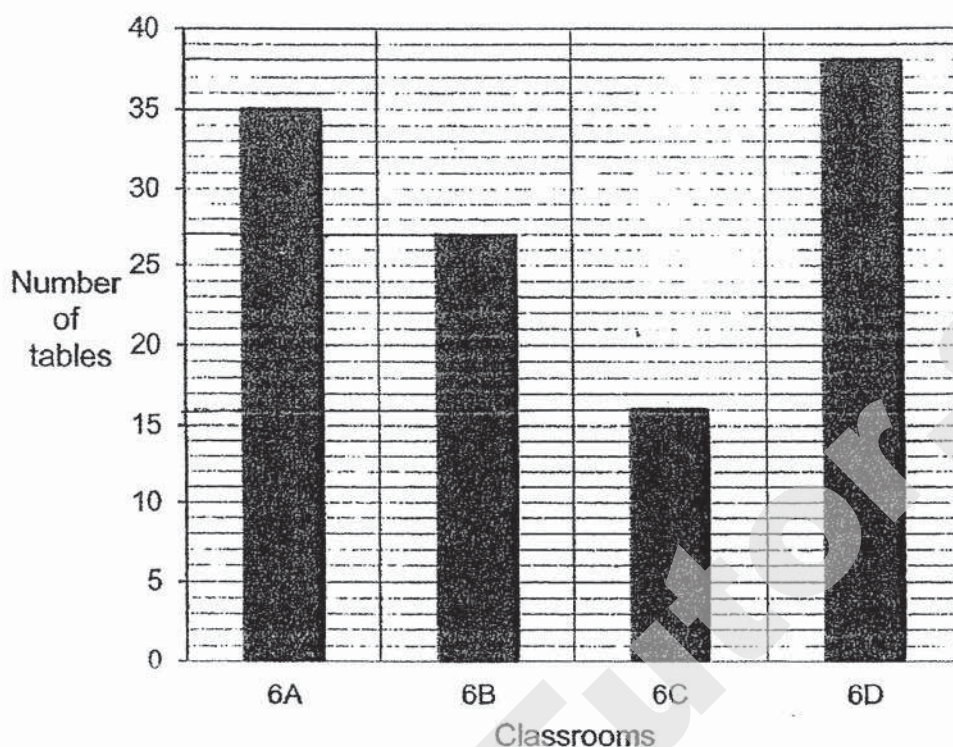


Ans: \_\_\_\_\_ [3]



- 8 The graph below shows the number of tables in the Primary classrooms in Victory School.

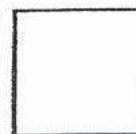
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- (a) There is room in each classroom for 40 tables. How many more tables can be added to the classrooms?
- (b) 29 tables are added to the classrooms. What is the percentage increase in the number of tables?

Ans: (a) \_\_\_\_\_ [1]

(b) \_\_\_\_\_ [2]





Do not write  
in this space

- 9 Mrs Lee had  $6m$  mangoes. She ate 2 mangoes and gave  $3m$  mangoes to her sister. She then used half of the remaining mangoes to bake a mango cake.

- (a) How many mangoes had Mrs Lee left? Give your answer in terms of  $m$  in the simplest form.
- (b) If  $m = 4$ , how many mangoes had Mrs Lee left?

Ans: (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [1]

- 10 A piece of paper as shown below recorded the number of points obtained by 6 pupils in a quiz. The average number of points obtained by each pupil was 80. Parts of the points obtained by Eve and Faith could not be seen as the paper was stained accidentally. How many points did each of them, Eve and Faith, obtain?

Agnes	Becky	Carol	Diana	Eve	Faith
74	88	93	84	8	2

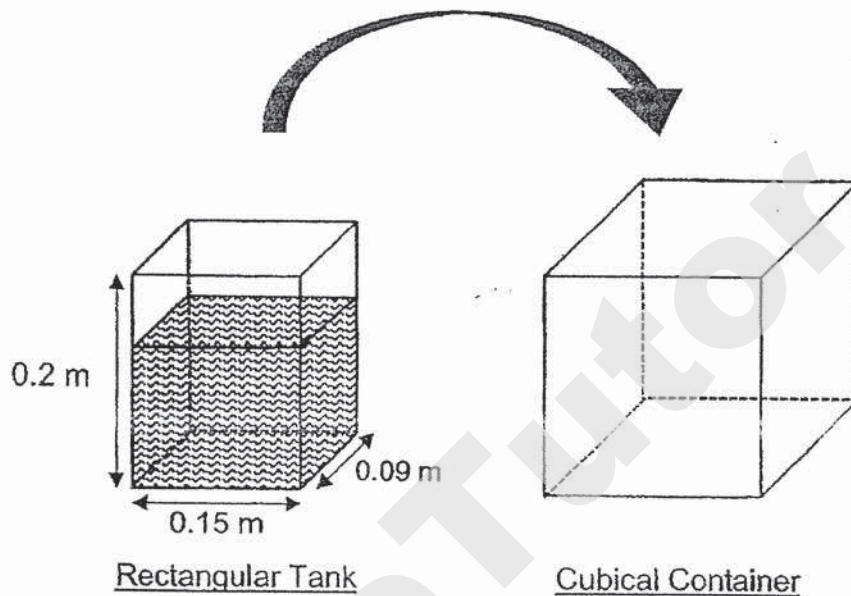
Ans: Eve : \_\_\_\_\_

Faith : \_\_\_\_\_ [3]



- 11 A rectangular tank measuring 0.15 m by 0.09 m by 0.2 m is filled with water up to  $\frac{3}{4}$  of its height. All the water in this rectangular tank is then poured into a cubical container filling up only  $\frac{3}{5}$  of the cubical container. Find the capacity of the cubical container in cubic centimetres.

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Ans: \_\_\_\_\_ [4]

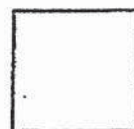




- 12 A delivery company charges \$50 for every successful delivery made without damages to the items. It will charge \$5 less for any delivery with damages. Last month, the company earned \$12 610. For every 20 deliveries, 6 of them were with damages. How many deliveries were made without any damages?

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Ans: \_\_\_\_\_ [4]





13 Ali, Ben, Cain and Dan, shared a sum of money.

Ali has  $\frac{1}{2}$  of the total amount of money that Ben, Cain and Dan have.

Ben has  $\frac{1}{3}$  of the total amount of money that Ali, Cain and Dan have.

Cain has  $\frac{1}{7}$  of the total amount of money that Ali, Ben and Dan have.

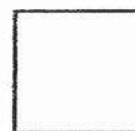
(a) What fraction of the total sum of money does Dan have?

(b) Dan has \$84. Find the sum of money shared by the 4 boys.

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in this space

Ans: (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [2]

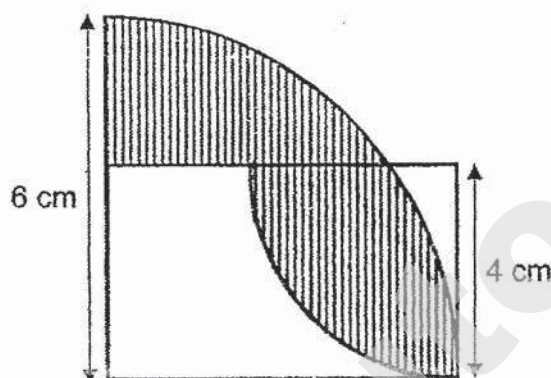




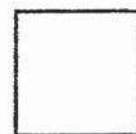
- 14 The figure below is made up of a rectangle and two different quarter circles. The radius of the big quarter circle is 6 cm and the radius of the small quarter circle is 4 cm. (Take  $\pi = 3.14$ )

Do not write  
in this space

- (a) Find the perimeter of the shaded part.
- (b) Find the area of the shaded part.



Ans: (a) \_\_\_\_\_ [2]  
(b) \_\_\_\_\_ [2]

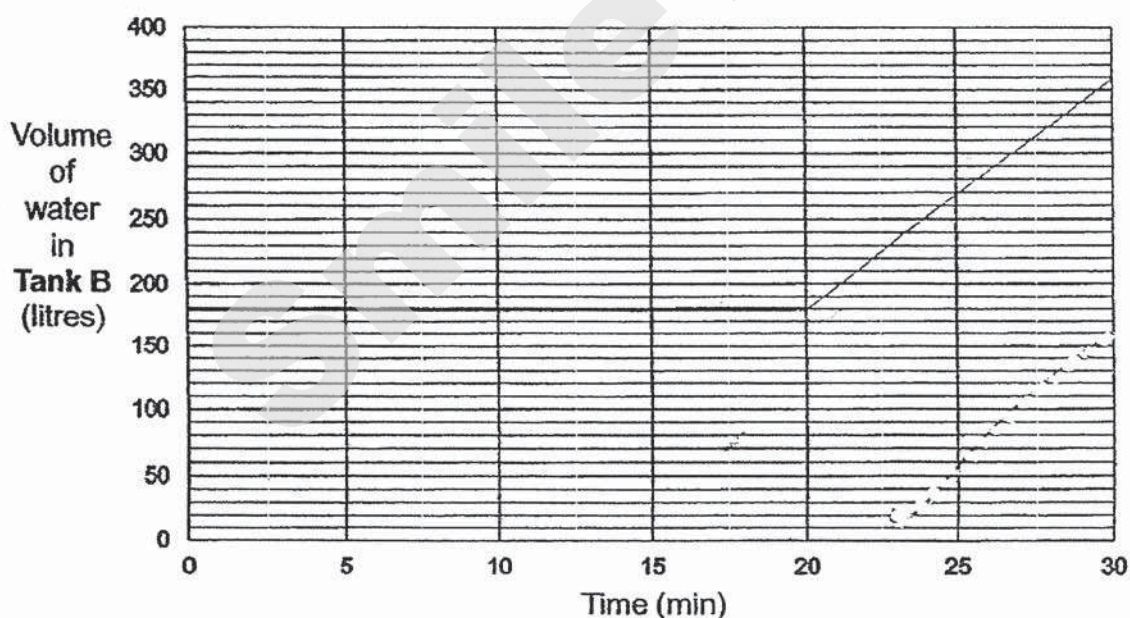
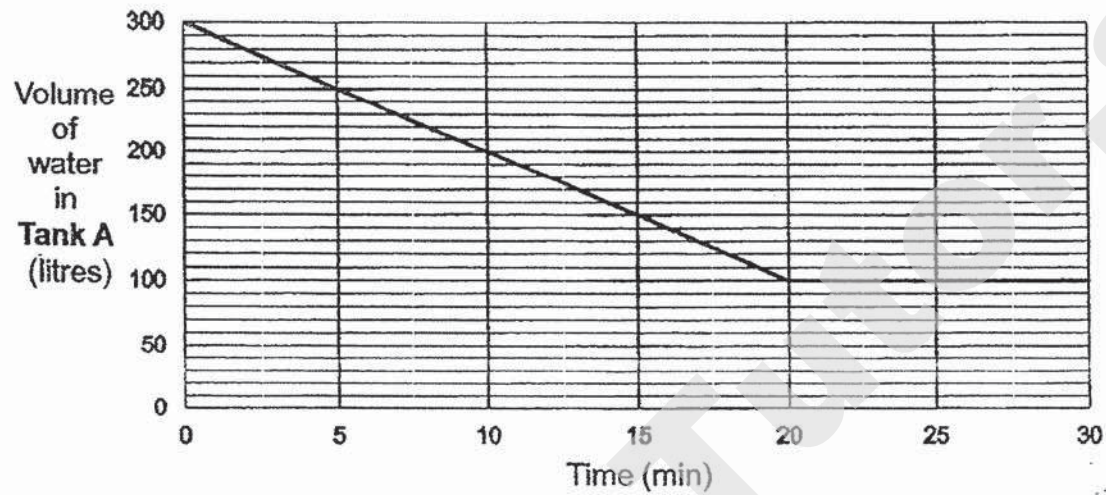




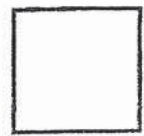
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- 15 The line graphs show volume of water in Tank A and Tank B, with different capacities. At first, Tank A was completely filled with water while Tank B was half-filled with water.

A tap was turned on to drain out water from Tank A. After 20 minutes, the tap in Tank A was turned off. A tap was then turned on for 10 minutes for water to flow into Tank B at a constant rate and filling it to its brim.



- (a) Complete the line graph to show the volume of water in Tank B in the last 10 minutes. [1]





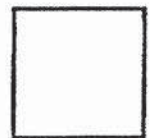
(b) How much water is drained from the tap in Tank A in 1 minute?

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in this space

(c) How much **more** water flowed from the tap in Tank B as compared to the tap in Tank A in 10 minutes?

Ans: (b) \_\_\_\_\_ [1]

(c) \_\_\_\_\_ [2]

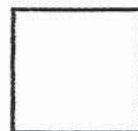




- 16 If Alice gave 22 sweets to Doris, she would have 4 times as many sweets as Doris. If Doris gave 18 sweets to Alice, she would have  $\frac{1}{9}$  of the total number of sweets Alice and Doris had. Find the total number of sweets they had altogether.

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Ans: \_\_\_\_\_ [5]

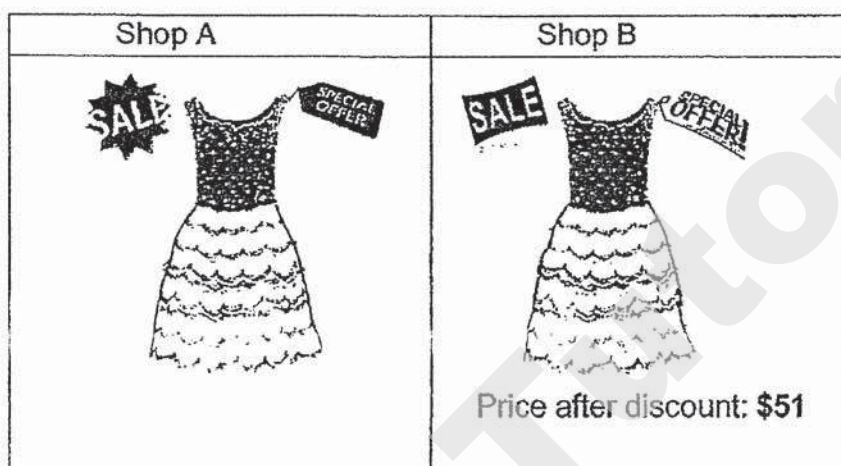




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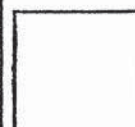
- 17 An identical dress with the same usual price was sold in both Shop A and Shop B. At a sale, Shop B offered a 5% discount more than Shop A. Meiling bought the dress from Shop B and paid \$51. The purchase saved her \$3.40 more as compared to buying the dress from Shop A.

- (a) What was the usual price of the dress before the discount?
- (b) What was the percentage discount offered in Shop A?



Ans: (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [3]



End of Paper



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# ANSWER KEY

YEAR: 2020

LEVEL: PRIMARY 6

SCHOOL: METHODIST GIRLS' SCHOOL

SUBJECT: MATH

TERM: PRELIMINARY EXAMINATION

## BOOKLET A

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

## BOOKLET B

Q16. 3040001

Q17. 2950

Q18.  $\frac{3}{5} = 40\text{cm}$

$$1000 \div 40 = 250 \div 10 = 25$$

Q19.  $\frac{15\text{min}}{\text{tank}} = \frac{150}{225} = \frac{2}{3}$

Q20. 12min  $\rightarrow$  600

1 min  $\rightarrow$   $600 \div 12 = 50$

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Q21.  $90 - 50 = 40$

$$40 - 8 = 32$$

$32^\circ$

Q22.  $\frac{22}{7} \times \frac{7}{1} = \frac{22}{1} = 22$

$$\frac{22}{7} \times \frac{4}{1} = \frac{44}{1} = 44$$



$$22+44=66$$

$$66+4=70\text{cm}$$

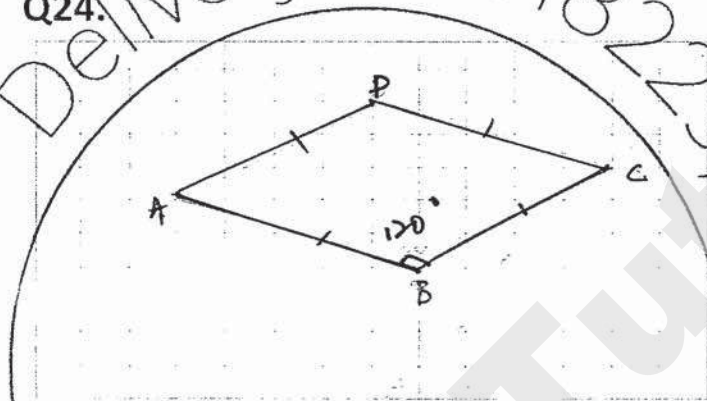
$$\text{Q23. } 70 \times 4 = 280$$

$$360 - 280 = 80$$

$$8 \div 2 = 40$$

$$180 - 60 - 70 = 50$$

Q24.



$$\text{Q25. } 4 \times 4 \times 4 = 64$$

$$9 + 1 + 1 + 3 = 14$$

$$64 - 14 = 50$$

$$\text{Q26. } 4.50 + 0.50 = 5.00$$

$$100 \div 5 = 20$$

$$20 \times 0.50 = \$10$$

$$\text{Q27. } 2n \times 15 = 30n$$

$$30n - 11$$

$$\text{Q28. } 180 - 88 = 92$$

$$92 \div 2 = 46$$

$$94 - 46 = 48$$



Q29.  $36q=54c$

$6a=9c$

$2a=3c$

$4 \div 2 = 2$

$2 \times 3 = 6$

$3a+6=45$

$54-45=9$

Q30.  $8+15+7=30$

$30 \div 3 = 10$

$10-6=4$



# ANSWER KEY

YEAR: 2020

LEVEL: PRIMARY 6

SCHOOL: METHODIST GIRLS' SCHOOL

SUBJECT: MATH

TERM: PRELIMINARY EXAMINATION  
(PAPER 2)

Q1. (a)D

(b)G

Q2.  $126 \div 45 = 2.80$

$2.80 - 0.80 = 2$

$126 \div 2 = 63 - 45 = 18$

Mr Tan could buy 18 more markers

Q3.

True	False	Not possible to tell
		✓
		✓

Q4.  $100\% \rightarrow 200$

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$90\% \rightarrow \frac{200}{100} \times 90 = 180$

$200 + 180 = 380$

$2280 \div 380 = 6h$

It would take 6 hours to produce 2280 toys if both machines were used at the same time.



Q5.  $60-45=15$

$15^\circ$

Q6.  $6 \times 6 = 36$

$3.14 \times 3 \times 3 = 28.26$

$36 - 28.26 = 7.74$

$3 \times 3 = a$

$7.74 \div 9 = 0.86$

The area of the shaded part is  $16.74 \text{ cm}^2$

Q7.  $90-48=42$

$90-32=58$

$90-42=48$

$58-48=10^\circ$

Q8. a)  $35+27+16+38=126$

$40 \times 4 = 160$

$160 - 116 = 44$

b)  $\frac{29}{116} \times 100 = 25\%$

Q9. a)  $6m-2-3m=3m-2$

$\frac{3m-2}{2} = (1\frac{1}{2}m-1)$

b)  $6 \times 4 = 24$

$24-2=22$

$3 \times 4 = 12$

$22-12=10$

$10 \div 2 = 5$

a) Mrs Lee had  $(1\frac{1}{2}m-2)$  mangos left

b) Mrs Lee had 5 mangoes left

Q10.  $74+88+93+84+80+2=421$

$80 \times 6 = 480$

$480 - 421 = 59$

Eve: 89 Faith: 52



$$Q11. (20 \div 4) \times 3 = 15$$

$$15 \times 15 \times 9 = 2025$$

$$2025 \div 3 = 675$$

$$675 \times 3375$$

The capacity of the cubical tank is  $3375 \text{ cm}^3$

$$Q12. 20 \times 50 = 1000$$

$$6 \times 5 = 30$$

$$1000 - 30 = 970$$

$$12610 \div 970 = 13$$

$$20 - 6 = 14$$

$$13 \times 14 = 182$$

182 deliveries were made without damage

$$Q13. a) 24 - 8 - 6 - 3 = 7 (\text{Dan})$$

$$\frac{\text{Dan}}{\text{Total}} = \frac{7}{24}$$

$$b) 7u \rightarrow 84$$

$$1u \rightarrow 12$$

$$\text{total} \rightarrow 24n$$

$$24n \rightarrow 12 \times 24 = 228$$

$$a) \text{Dan has } \frac{7}{24}$$

b) The 4 boys have \$228 altogether

$$Q14. a) \frac{1}{4} \times \pi \times D = \frac{1}{4} \times 3.14 \times 12 = 9.42$$

$$\frac{1}{4} \times 3.14 \times \pi = \frac{1}{4} \times 3.14 \times 8 = 6.28$$

$$9.42 + 6.28 + 2 + 2 = 19.7 \text{ cm}$$

$$b) \frac{1}{4} \times 3.14 \times 4 \times 4 = 12.56$$

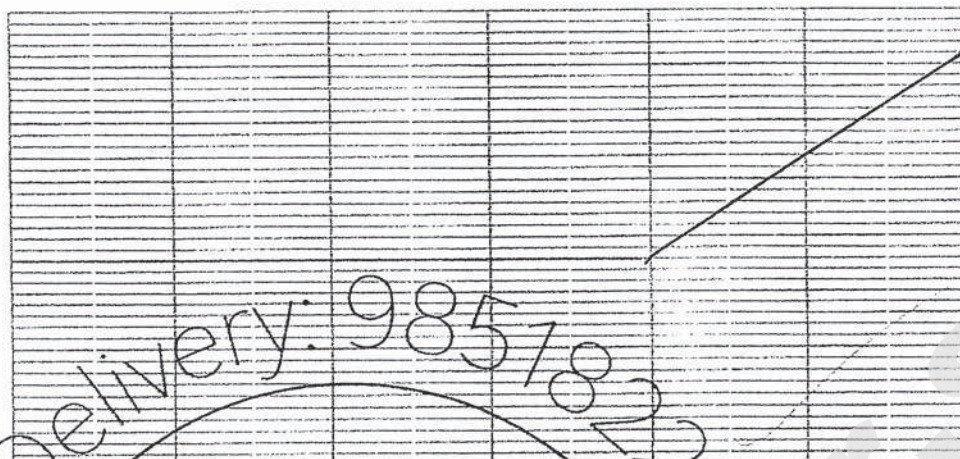
$$6 \times 4 = 24$$

$$24 - 12.56 = 11.44$$

$$\frac{1}{4} \times \pi \times r \times r = \frac{1}{4} \times 3.14 \times 6 \times 6 = 16.82 \text{ cm}^2$$



Q15.



b)  $300 - 100 = 200$

$200 \div 20 = 10$

c) Tank B 10min  $\rightarrow$  180l

Tank A 10min  $\rightarrow$   $200 \div 2 = 100$ l

80l more of water is drained from tank B than Tank A in 10 min.

Q16.  $9u = 5u + 5x(18 + 22)$

$9u - 4u = 5 \times 40$

$4u = 200$  sweets

$1u = 200 \div 4 = 50$

$9u = 9 \times 50 = 450$

$36n + 22 = 40u + 8$

$22 + 18 = 40u - 36u$

$40 = 4u$

$45u = 450$



Q17. a) 5%  $\rightarrow$  3.40

$3.40 \times 20 = 68$

b)  $51 + 3.40 = 54.40 = 54.40$

$68 - 54.40 = 13.65$

$\frac{13.6}{68} \times 100\% = 20\%$

a) The usual price of the dress before discount is \$68

b) The percentage discount offered in Shop A is 20%

7 END.

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NAN HUA PRIMARY SCHOOL  
PRELIMINARY EXAMINATION – 2020  
PRIMARY 6

MATHEMATICS  
PAPER 1  
(BOOKLET A)

Total Time for Booklets A and B: 1 hour

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

Name : \_\_\_\_\_ . (       )

Class : 6 \_\_\_\_\_

Date : 27 August 2020

Parent's Signature: \_\_\_\_\_



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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) and shade the oval (1, 2, 3 or 4) on the Optical Answer Sheet. (20 marks)

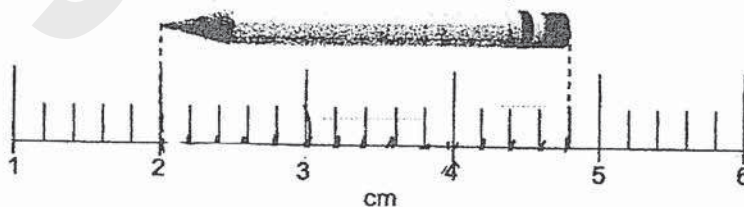
1. In 123.456, which digit is in the hundredths place?

- (1) 1
- (2) 5
- (3) 6
- (4) 4

2. Which of the following is 9000 when rounded to the nearest thousands?

- (1) 8099
- (2) 8450
- (3) 9499
- (4) 9500

3. What is the length of the pencil shown?



- (1) 2.4 cm
- (2) 2.8 cm
- (3) 4.4 cm
- (4) 4.8 cm



4. What is the approximate height of a classroom door?

- (1) 20 m
- (2) 20 cm
- (3) 200 m
- (4) 200 cm

5. Express  $4\frac{2}{50}$  as a decimal.

- (1) 4.2
- (2) 4.4
- (3) 4.02
- (4) 4.04

6. In a class of 36 students, 13 of them are boys. Find the ratio of the number of girls to the number of boys.

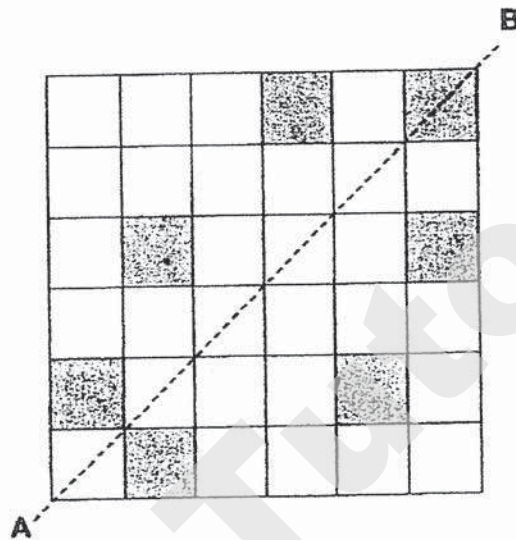
- (1) 36 : 13
- (2) 13 : 23
- (3) 23 : 13
- (4) 23 : 36

7. Simplify  $15 + 8p - 10 + 5p$

- (1)  $25 + 13p$
- (2)  $5 + 13p$
- (3)  $25 + 3p$
- (4)  $5 + 3p$



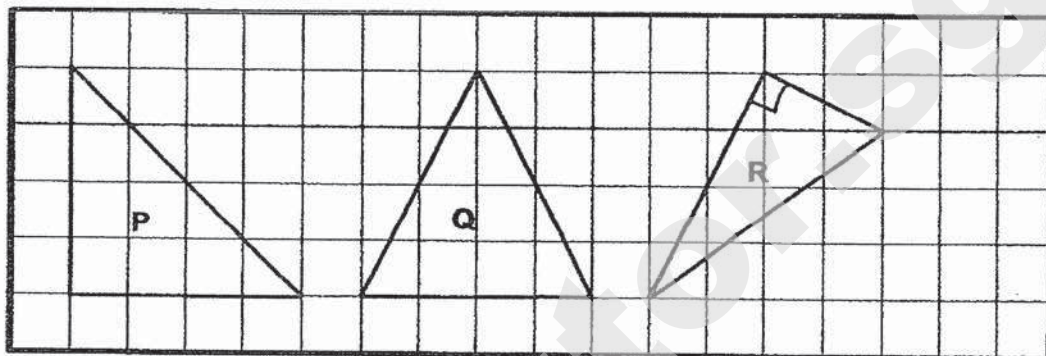
8. The figure below shows some shaded squares. What is the minimum number of squares that needs to be shaded so that AB is the line of symmetry?



- (1) 1  
(2) 2  
(3) 3  
(4) 4
9. 120% of a number is 60. What is 30% of the number?
- (1) 15  
(2) 18  
(3) 30  
(4) 72



10. Three figures,  $\triangle P$ ,  $\triangle Q$  and  $\triangle R$ , are shown in the square grid below.



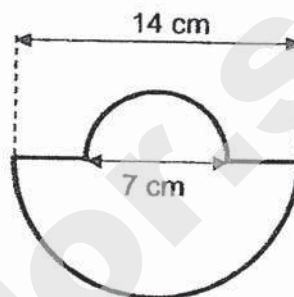
Which of the statements is true?

- (1) Figure Q and Figure R are isosceles triangles.
  - (2) Figure P and Figure Q are equilateral triangles.
  - (3) Figure P and Figure R are right-angled triangles.
  - (4) None of the above statements is true.
11. The average mass of 3 boys was 32 kg. When a 4<sup>th</sup> boy joined the group, the average mass of the 4 boys was 33 kg. What was the mass of the 4<sup>th</sup> boy?
- (1) 32.25 kg
  - (2) 33 kg
  - (3) 35 kg
  - (4) 36 kg

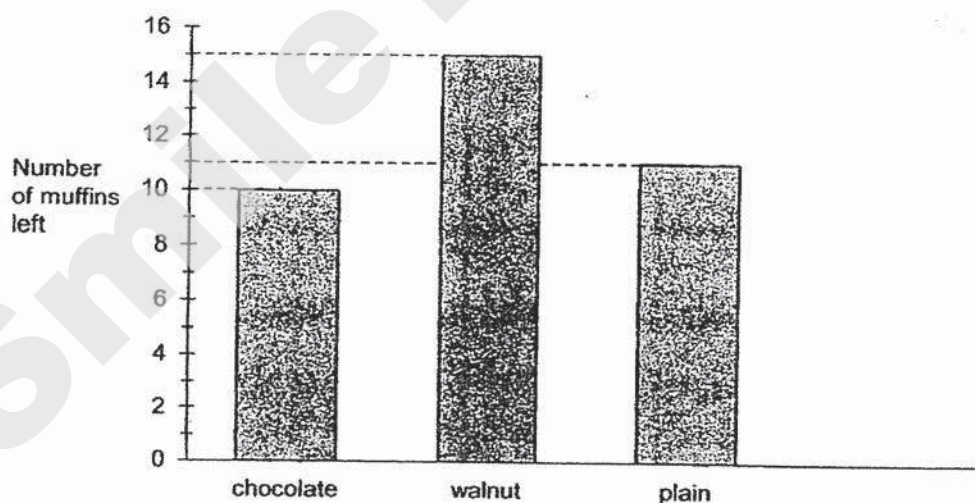


12. The figure below is formed by joining two semicircles of diameter 7 cm and 14 cm. Find the perimeter of the figure. (Take  $\pi = \frac{22}{7}$ )

- (1) 33 cm  
(2) 40 cm  
(3) 73 cm  
(4) 115.5 cm



13. Sally baked 3 types of muffins to sell at a funfair. She baked 100 of each type of muffins. The graph below shows the number of each type of muffins left at the end of the funfair.

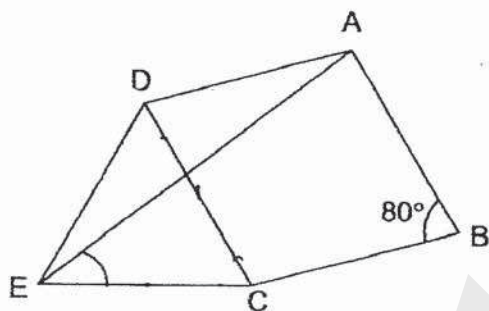


What percentage of the total number of muffins were sold?

- (1) 12%  
(2) 36%  
(3) 64%  
(4) 88%



14. In the figure, ABCD is a rhombus. CDE is an equilateral triangle. Find  $\angle AEC$ .



- (1)  $20^\circ$
- (2)  $40^\circ$
- (3)  $60^\circ$
- (4)  $80^\circ$

15. David and Elijah each spent the same amount of money. David had  $\frac{1}{4}$  of his money left and Elijah had  $\frac{3}{5}$  of his money left. What was the ratio of the amount of money David had at first to the amount of money Elijah had at first?

- (1) 4 : 5
- (2) 9 : 2
- (3) 12 : 5
- (4) 8 : 15





**NAN HUA PRIMARY SCHOOL  
PRELIMINARY EXAMINATION – 2020  
PRIMARY 6**

**MATHEMATICS  
PAPER 1  
(BOOKLET B)**

**Total Time for Booklets A and B: 1 hour**

**INSTRUCTIONS 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. Write your answers in this booklet.
6. The use of calculators is **NOT** allowed.

**Marks Obtained**

<b>Paper 1</b>	<b>Booklet A</b>		<b>/ 45</b>
	<b>Booklet B</b>		
<b>Paper 2</b>			<b>/ 55</b>
<b>Total</b>			<b>/ 100</b>

**Name :** \_\_\_\_\_ (       )

**Class : 6** \_\_\_\_\_

**Date : 27 August 2020**

**Parent's Signature :** \_\_\_\_\_



Questions 16 to 20 carry 1 mark each. Write your answers in the spaces provided.  
For questions which require units, give your answers in the units stated.

(5 marks)

Do not write  
in this space

16. Arrange the following decimals from the smallest to the greatest:

8.609, 8.069, 6.89, 6.809

_____	_____	_____	_____
smallest			greatest

17. The number of spectators at a football match was 1500 on Saturday.  
On Sunday, the number of spectators was 1200.  
What was the percentage decrease in the number of spectators?

Ans: \_\_\_\_\_ %

18. A rope is cut into 6 identical short pieces. The length of each short piece is 37 cm. What is the original length of the rope in metres?

Ans: \_\_\_\_\_ m

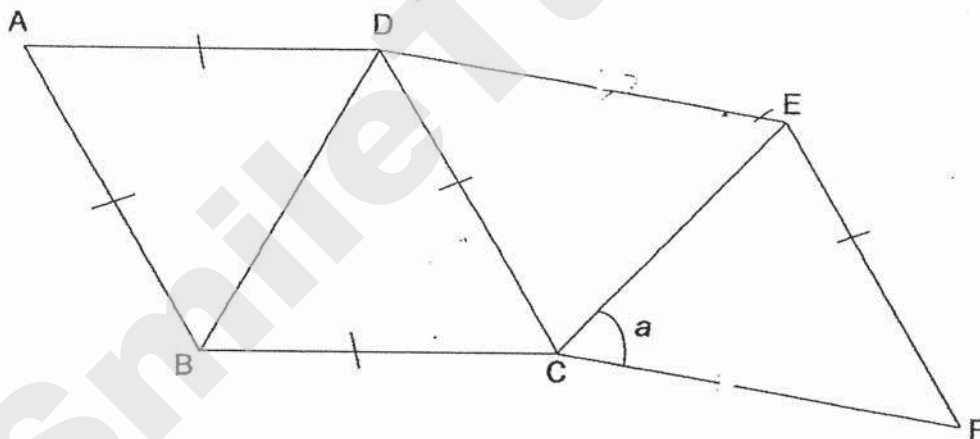


19. Bala made a  $135^\circ$  clockwise turn to face North-west. Which direction was he facing at first?

Do not write  
in this space

Ans: \_\_\_\_\_

20. The figure below is made up of rhombus ABCD and parallelogram CDEF. Mark the angle(s) that is/are equal to  $\angle a$ .





Questions 21 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.

(20marks)

Do not write  
in this space

21. Find the value of

a)  $\frac{7}{8} \times 16$

b)  $14 \div \frac{2}{3}$

Ans: a) \_\_\_\_\_

b) \_\_\_\_\_

22. Mr Ang works from 8.30 a.m. to 5 p.m. daily. How many hours did he work in total from Monday to Saturday?

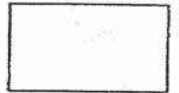
Ans: \_\_\_\_\_ h



23. Siti used  $\frac{3}{5}$  kg of sugar to bake some cookies. She used  $\frac{1}{4}$  kg more sugar than what she used for the cookies to bake a cake. How much sugar did she use in all? (Leave your answer as a mixed number in its simplest form.)

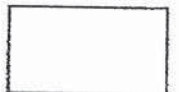
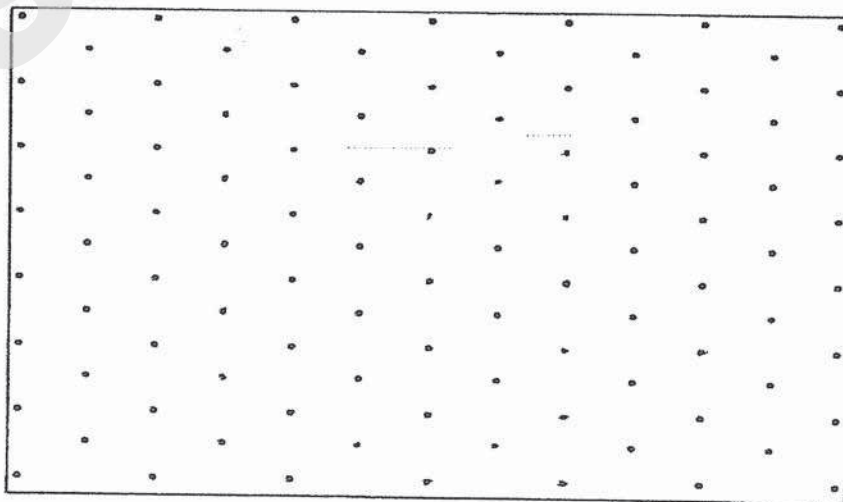
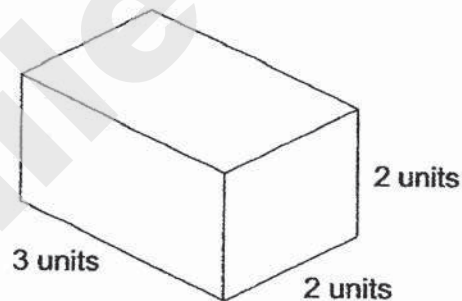
Do not write  
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Ans: \_\_\_\_\_ kg



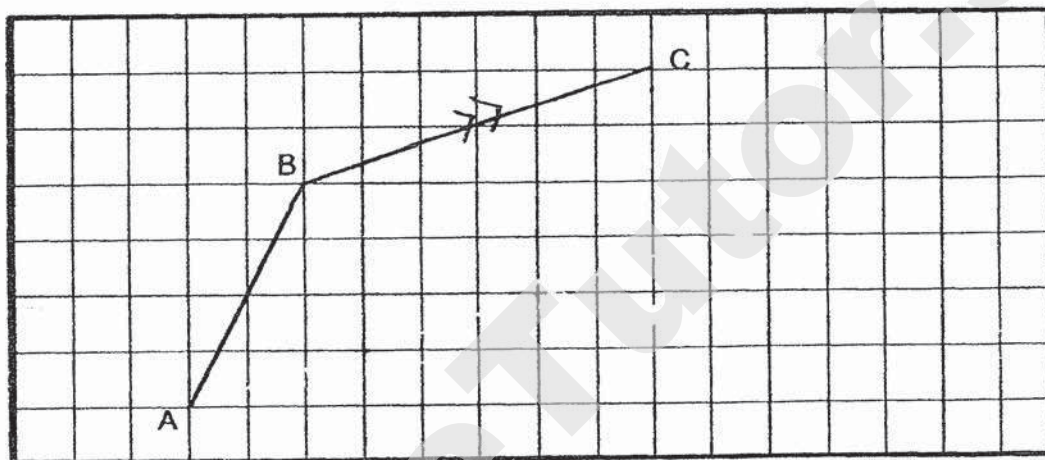
24. The figure below shows Cuboid A. Draw a cuboid with a volume twice that of Cuboid A on the isometric grid provided.

Cuboid A





25. In the square grid below, AB and BC are straight lines.  
AB and BC form two sides of a trapezium.  $\angle BCD$  is a right angle.  
Complete the drawing of trapezium ABCD.



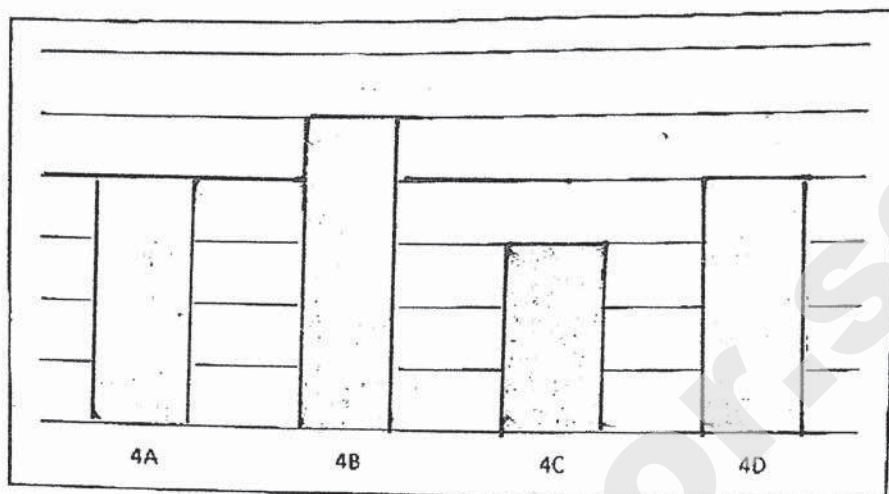
Do not write  
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26. Weiming sold  $(k + 5)$  carnival tickets. Ali sold  $k$  more carnival tickets than Weiming. They sold a total of 55 carnival tickets. Find the value of  $k$ .

Ans: \_\_\_\_\_



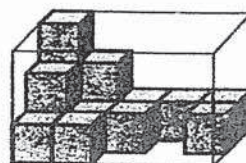
27. The graph below shows the number of cans collected by 4 different classes.



4C collected 30 fewer cans than 4B. What is the average number of cans collected by each class?

Ans: \_\_\_\_\_

28. The figure shows a rectangular glass box partially filled with unit cubes. How many more unit cubes are needed to fill the box completely?

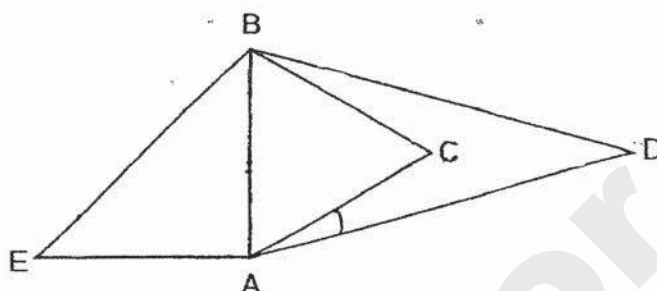


Ans: \_\_\_\_\_



29. In the figure below, ABC is an equilateral triangle, ABD is an isosceles triangle and ABE is a right-angled triangle.  $AE = AB$ .

Do not write  
in this space



Each statement below is either true, false or not possible to tell from the information given. For each statement, put a tick (✓) in the correct column.

Statement	True	False	Not possible to tell
$\angle EBC = 105^\circ$			
$\angle ADB$ is smaller than $\angle DBA$			

30. Aini has a rectangular piece of paper. She folded two corners to the centre of the paper as shown below. Find  $\angle y$ .



Ans: \_\_\_\_\_°

END OF PAPER





NAN HUA PRIMARY SCHOOL  
PRELIMINARY EXAMINATION – 2020  
PRIMARY 6

MATHEMATICS  
Paper 2

Total Time for Paper 2: 1 hour 30 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. Write your answers in this booklet.
6. The use of an approved calculator is expected, where appropriate.

Marks Obtained

Total	Max Mark
	55

Name : \_\_\_\_\_.(       )

Class : 6. \_\_\_\_\_

Date : 27 August 2020

Parent's Signature : \_\_\_\_\_



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

1. Raju and Huili used blocks to build towers. Raju's tower was 145 cm tall. Huili's tower was 8 cm shorter than ~~Bala's~~ Raju's tower. How tall was Huili's tower in metres?

Do not write in this space

Ans: \_\_\_\_\_ m

2. The first 14 numbers in a number pattern are given below.

3, 1, 0, 5, 3, 1, 0, 5, 3, 1, 0, 5, 3, 1, ...  
1<sup>st</sup> 14<sup>th</sup>

What is the sum of the first 70 numbers?

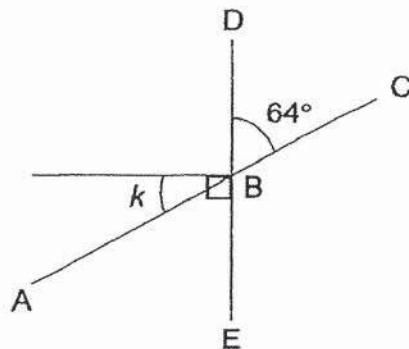
Ans: \_\_\_\_\_

3. The breadth of a rectangle is 2d m. The length of the rectangle is 3 m longer than its breadth. What is the perimeter of the rectangle?

Ans: \_\_\_\_\_ m



4. In the figure, ABC and DBE are straight lines. Find  $\angle k$ .



Do not  
write in  
this space

Ans: \_\_\_\_\_ °

5. At a camp, the boys and girls are divided into groups of 18. The table below shows the number of girls in each group.

Group	Number of girls
Courtesy	10
Righteousness	12
Integrity	
Humility	9

$\frac{3}{8}$  of the participants are boys. How many girls are there in Integrity?

Ans: \_\_\_\_\_



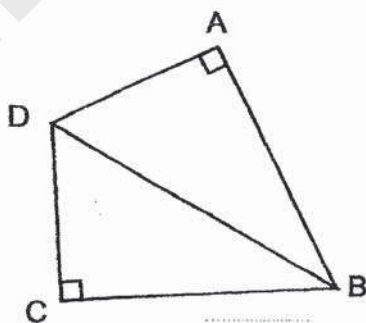
For questions from 6 to 17, show your working clearly and write your answers in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question. (45 marks)

6. The usual price of a television set was \$1750. During a sale, the price of the television set was reduced by 30%. Jessie bought the television set during the sale. She also paid an additional 7% GST on the discounted price. How much did Jessie pay for the television set in total?

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Ans: \_\_\_\_\_ [3]

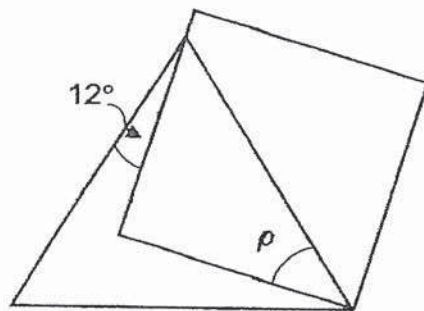
7. Rashid cut out two identical right-angled triangles. He joined them to form the figure ABCD shown below. The ratio of the length of AB to the length of AD is 3 : 2. The perimeter of the figure is 125 cm. Find the area of the figure ABCD.



Ans: \_\_\_\_\_ [3]

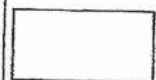


8. The figure is made up of an equilateral triangle and a square. Find  $\angle p$ .



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write in  
this space

Ans: \_\_\_\_\_ [3]





9. A basket contained red, blue and yellow balls only. The ratio of the number of red balls to the number of blue balls is 4 : 3. The ratio of the number of blue balls to the number of yellow balls is 2 : 3.

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write in  
this space

- a) Find the ratio of the number of yellow balls to the number of red balls.
- b) After 15 yellow balls were removed, 30% of the remaining balls were yellow. How many balls were left in the basket?

Ans: a) \_\_\_\_\_ [1]

b) \_\_\_\_\_ [3]



10. The average of 6 numbers is 78. When one number was removed, the average increased by 9. What is the number that was removed?

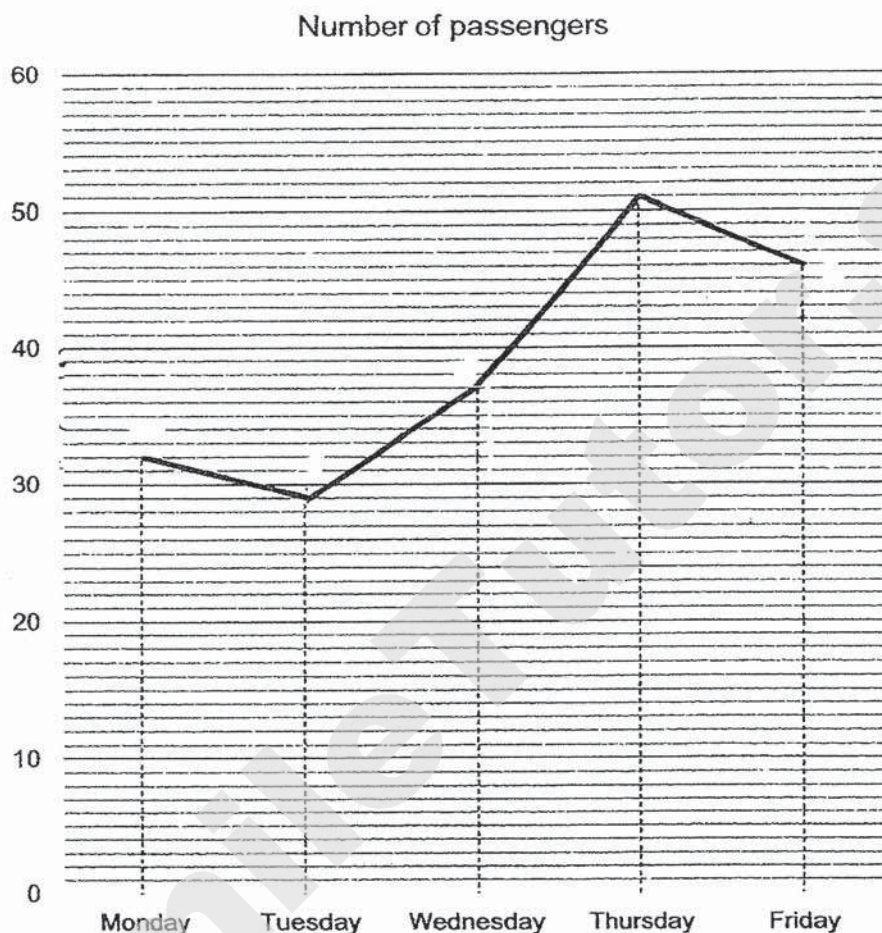
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Ans: \_\_\_\_\_ [4]



11. The line graph shows the number of passengers a taxi driver picked up from Monday to Friday.

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write in  
this space



- (a) What was the total number of passengers picked up from Monday to Thursday?
- (b) The number of passengers on Saturday was a 50% increase of the number of passengers on Friday. How many passengers were there on Saturday?

Ans: a) \_\_\_\_\_ [2]

b) \_\_\_\_\_ [2]



12. Tap A can fill a tank to its brim in 20 minutes. Tap B can fill the same tank to its brim in 30 minutes. Both taps are turned on at the same time to fill the tank together. How long will it take to fill the tank to its brim?

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write in  
this space

Ans: \_\_\_\_\_ [3]



13. A group of students took part in a quiz.  $\frac{2}{5}$  of the boys and  $\frac{1}{3}$  of the girls were prize-winners.  $\frac{4}{9}$  of the prize-winners were boys. What fraction of the students were not prize-winners?

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write in  
this space

Ans: \_\_\_\_\_ [3]



14. Mrs Tan decorated opposite sides of a rectangular room for her son's birthday party. On one side, she hung triangular flags of base 15 cm from one end to the other without leaving any gaps as shown in Figure 1.

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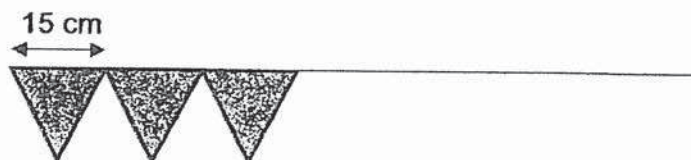


Figure 1

On the other side, she hung photographs of her son from strings tied 9 cm apart, the first photo and the last photo 9 cm away from the wall as shown in Figure 2.

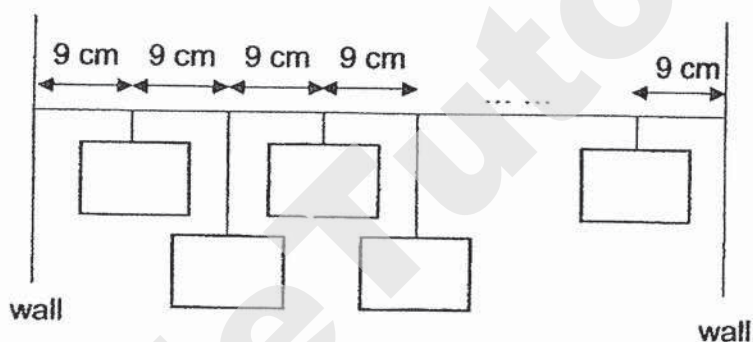


Figure 2

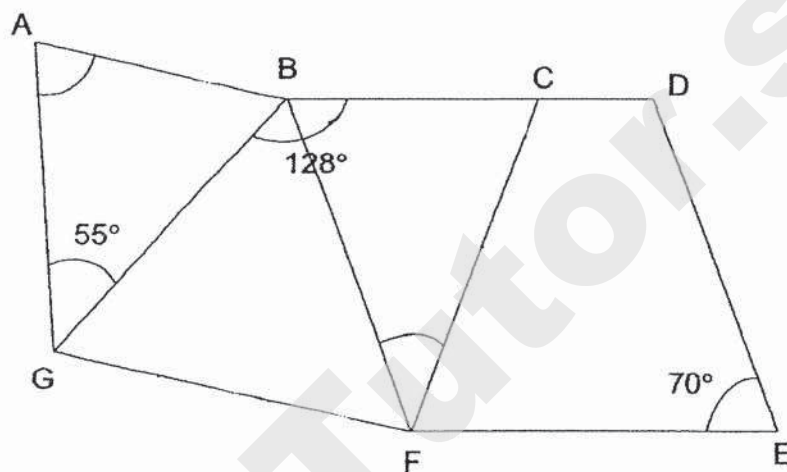
She used 19 more photos than flags. What was the length of the room in metres?

Ans: \_\_\_\_\_ [4]



15. In the figure below, BDEF is a rhombus. ABFG is a trapezium. AB is parallel to GF.  $BF = FG = CF$ .  $\angle DEF = 70^\circ$ ,  $\angle GBC = 128^\circ$  and  $\angle AGB = 55^\circ$ .

- a) Find  $\angle BFC$ .  
b) Find  $\angle GAB$ .



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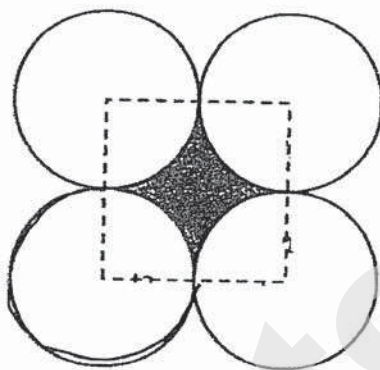
Ans: a) \_\_\_\_\_ [2]  
b) \_\_\_\_\_ [2]



16. The figure below shows four identical circles. A square of sides 24 cm can be formed by joining the centres of the circle. (Take  $\pi = 3.14$ )

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write in  
this space

- a) Find the perimeter of the figure.  
b) Find the area of the shaded part.



Ans: a) \_\_\_\_\_ [2]  
b) \_\_\_\_\_ [3]



17. Roy uses rods of 3 cm to form figures that follow a pattern. The first four figures are shown below.

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write in  
this space



Figure 1

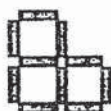


Figure 2

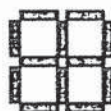


Figure 3



Figure 4

- a) The table below shows the number of rods used for each figure and the perimeter of each figure. Complete the table for Figure 5.

Figure number	Number of rods used	Perimeter of the figure (cm)
1	7	18
2	10	24
3	12	24
4	15	30
5	(i)	(ii)

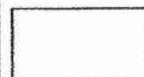
- b) What is the perimeter of the figure formed in Figure 40?  
c) Roy uses 60 rods to make a figure. What is the figure number?

Ans: a) (i) \_\_\_\_\_

(ii) \_\_\_\_\_ [1]

b) \_\_\_\_\_ [2]

c) \_\_\_\_\_ [2]



– End of Paper 2 –



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# ANSWER KEY

YEAR: 2020

LEVEL: PRIMARY 6

SCHOOL: NAN HUA PRIMARY SCHOOL

SUBJECT: MATH

TERM: PRELIMINARY EXAMINATION

## BOOKLET A

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

## BOOKLET B

Q16. 6.809, 6.89, 8.069, 8.609

Q17.  $\frac{1200}{1500} = \frac{12}{15} = \frac{4}{5}$

$\frac{80}{100}$

$100 - 80 = 20\%$

Q18.  $37 \times 6 = 222$

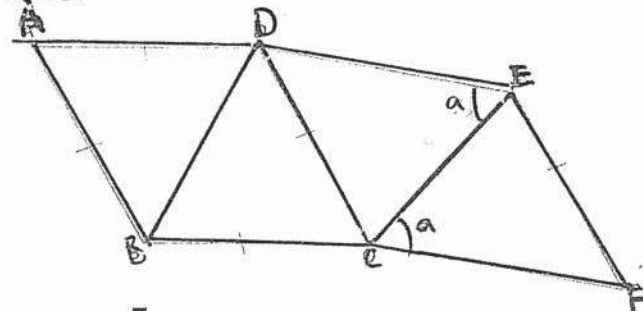
222cm = 2.22m

Q19. South



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Q20.



Q21. a)  $\frac{7}{8} \times 16 = 14$



b)  $14 \times \frac{3}{2} = 21$

Q22. 8.30a.m.  $\rightarrow$  9a.m.

9a.m.  $\rightarrow$  5p.m.

8h+30min=8h 30 min

8 30min  $\times 6 = 48$ h 180min=51h

Q23. Cookie =  $\frac{3}{5}$

Cake =  $\frac{3}{5} + \frac{1}{4}$  kg

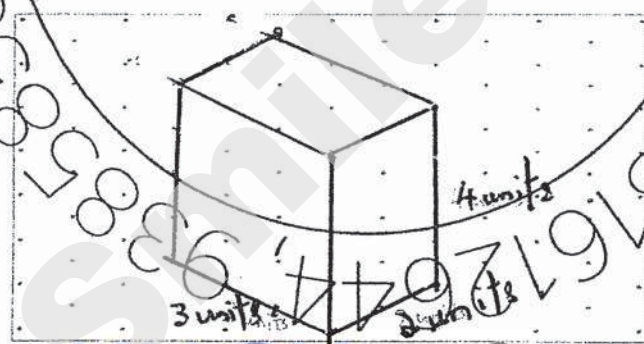
=  $(\frac{12}{20} + \frac{5}{20})$  kg

=  $\frac{17}{20}$  kg

$\frac{12}{20} + \frac{17}{20} = \frac{29}{20}$  kg

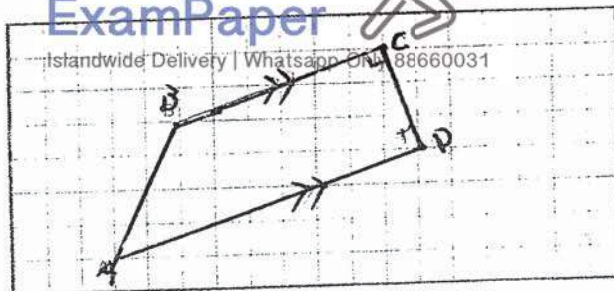
=  $1\frac{9}{20}$

Q24.



Q25.

**KIASU**  
ExamPaper



Q26.  $W = (K+5)$



$$A = K + 5 + K$$

$$= 2K + 5$$

$$3K$$

$$3K + 10 = 55$$

$$3K = 45$$

$$K = 15$$

$$\text{Q27. } 5u - 3u = 2u$$

$$2u = 30$$

$$u = 15$$

$$15 \times (4 + 5 + 3 + 4) = 15 \times 16 = 240$$

$$240 \div 4 = 60$$

$$\text{Q28. } 5 \times 3 \times 3 + 45$$

$$45 - 15 = 30$$

$$\text{Q29. True, True}$$

$$\text{Q30. } 360^\circ - 90^\circ - 90^\circ - 68^\circ = 112^\circ$$

$$180^\circ - 112^\circ = 68^\circ$$

$$68^\circ \div 2 = 34^\circ$$



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# ANSWER KEY

YEAR: 2020

LEVEL: PRIMARY 6

SCHOOL: NAN HUA PRIMARY SCHOOL

SUBJECT: MATH

TERM: PRELIMINARY EXAMINATION

(PAPER 2)

Q1.  $148 - 8 = 137$

$137 \text{ cm} = 1.37 \text{ m}$

Q2.  $70 \div 4 = 17 \text{ R}2$

$17 \times (3 + 1 + 0 + 5) = 153$

$153 + 3 + 1 = 157$

Q3.  $2d + 2d + 3 = 4d + 3$

$(4d + 3)2 = 8D + 6$

Q4.  $90^\circ - 64^\circ = 26^\circ$

Q5.  $18 - 1 = 17$  Boys in C

$18 - 12 = 6$  Boys in R

$18 - 9 = 9$  Boys in H

$\frac{10 + 12 + 9 + x}{8 + 6 + 9 + 18 - y} = \frac{5}{3}$

$93 = 3x = 205 - 5x$

$8x = 112$

$x = 14$

Q6.  $100\% - 30\% = 70\%$

$\$1750 \times 70\% = \$1225$

$\$1225 \times 107\% = \$1310.75$

He pay \$1310.75



Q7.  $2u+3u+2u+3u=10u$

$125\text{cm}=10u$

$u=12.5\text{cm}$

$12.5\text{cm}\times 2=25\text{cm}$

$12.5\text{cm}\times 3=37.5\text{cm}$

$25\text{cm}\times 37.5\text{cm}=937.5\text{cm}^2$

The area is  $937.5\text{cm}^2$

Q8.  $\angle a=60^\circ=12^\circ$

$=48^\circ$

$180^\circ-48^\circ-90^\circ=42^\circ$

$\angle P$  is  $42^\circ$

Q9.  $9u:8u=9:8$

The ratio is  $9:8$

$8u+6u+15=\frac{3}{10}$

$90u-150=69u-45$

$21u=105$

$u=5$

$(8+6+9)5-15=100$

100 balls were left in the basket.

a)  $9:8$

b) 100

Q10.  $6\times 78=468$

$(78+9)5=435$

$468-435=33$

The number is 33

Q11.  $32+29+37+51=149$

$46\times 150\%=69$  passengers

a) 149

b) 69



Q12.  $A \Rightarrow \frac{1}{20} T/\text{min}$

$B \Rightarrow \frac{1}{30} T/\text{min}$

$$\frac{1}{20} + \frac{1}{30} = \frac{1}{12}$$

$$1 = \frac{1}{12} = 12$$

It takes 12 min

Q13.  $4p+6p+5p+10p=25p$

$\frac{6p+10p}{25p} = \frac{16}{25}$  of the students were not.

Q14.  $\frac{x}{15} + 19 = \frac{x-9}{9}$

$$9x + 2565 = 15x - 135$$

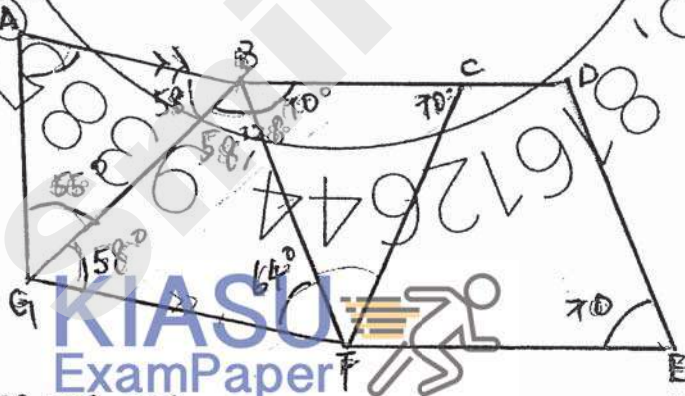
$$6x = 2700$$

$$x = 450$$

$$450\text{cm} = 4.5\text{m}$$

The rooms is 4.5m long

Q15.



$$180^\circ - 70^\circ = 40^\circ$$

$$\angle GBF = 128^\circ - 70^\circ = 58^\circ$$

$$\angle BFG = 180^\circ - 58^\circ - 58^\circ = 64^\circ$$

$$180 - 58^\circ - 55^\circ = 67^\circ$$

a)  $40^\circ$

b)  $67^\circ$



Q16.  $12 \times 2 = 24$

$24 \times 3.14 \times \frac{3}{4} \times 4 = 226.08 \text{ cm}$

$24 \times 24 = 576$

$12 \times 12 \times 3.14 = 452.16$

$576 - 452.16 = 123.84 \text{ cm}^2$

a)  $226.08 \text{ cm}$

b)  $123.84 \text{ cm}^2$

Q17.

fig 1  $\rightarrow 18$

fig 3  $\rightarrow 24$

fig 5  $\rightarrow 30$

fig 7  $\rightarrow 36$

fig 9  $\rightarrow 42$

fig 17  $\rightarrow (42 - 18) + 42 = 66$

fig 39  $\rightarrow 132$

$132 + 6 = 138$

a) (i) 17

(ii) 30

b)  $138 \text{ cm}$

c) 22u



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NANYANG PRIMARY SCHOOL

**PRELIMINARY EXAMINATION  
2020**

**PRIMARY 6**

**MATHEMATICS  
PAPER 1  
(BOOKLET A)**

Total Duration for Booklets A and B: 1 hour

Additional materials: Optical Answer Sheet (OAS)

**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: 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) and shade your answer on the Optical Answer  
Sheet. (20 marks)

---

1 Which of the following numbers is 12 000 when rounded to the nearest hundred?

(1) 11 908

(2) 11 950

(3) 12 089

(4) 12 095

2 4 tens and 28 hundredths is \_\_\_\_\_.

(1) 40.28

(2) 40.028

(3) 4.280

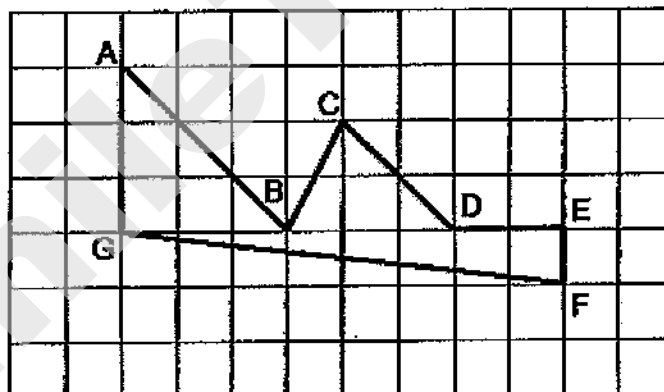
(4) 4.028



- 3 In the scale below, what is the value of A?



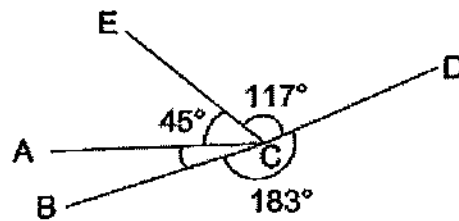
- (1) 36.035
  - (2) 36.051
  - (3) 36.055
  - (4) 36.550
- 4 Which pair of lines is parallel?



- (1) DE and EF
- (2) AG and BC
- (3) AB and CD
- (4) CD and FG

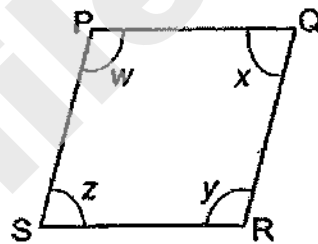


- 5 In the figure below,  $\angle BCD = 183^\circ$ ,  $\angle ECD = 117^\circ$  and  $\angle ACE = 45^\circ$ . Find  $\angle BCA$ .



- (1)  $15^\circ$
- (2)  $18^\circ$
- (3)  $35^\circ$
- (4)  $60^\circ$

- 6 In the figure below, PQRS is a rhombus.

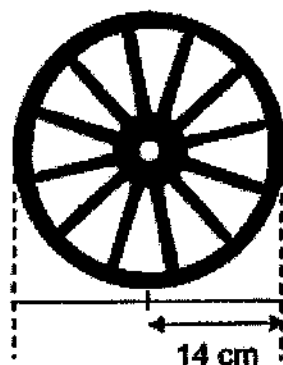


Which of the following statements is false?

- (1)  $\angle w = \angle y$
- (2)  $PQ = PS$
- (3)  $PQ \parallel SR$
- (4)  $\angle x + \angle z = 180^\circ$



- 7 A wheel of radius 14 cm made 10 complete turns. Find the distance covered. Take  $\pi = \frac{22}{7}$



- (1) 440 cm  
(2) 880 cm  
(3) 1760 cm  
(4) 6160 cm
- 8 Mrs Field sold  $(6n + 1)$  coconuts on Monday. She sold  $n$  more coconuts on Tuesday than on Monday. How many coconuts did she sell altogether?
- (1)  $7n + 1$   
(2)  $11n + 2$   
(3)  $13n + 1$   
(4)  $13n + 2$

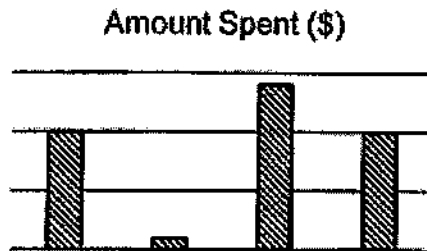


- 9 The table below shows how Megan spent her money.

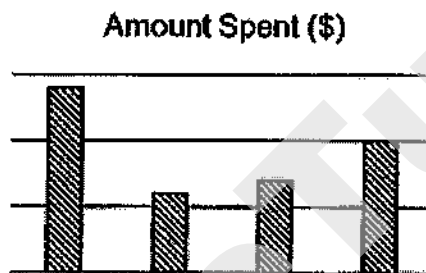
	Magazine	Story Book	Eraser	Pencil Case
Amount spent (\$)	6	10	10	14

Which of the following bar graph best represents Megan's spending?

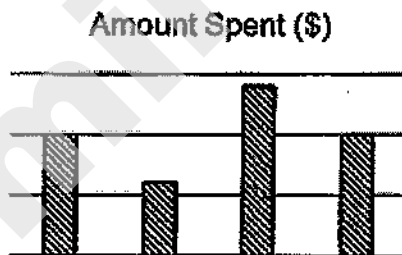
(1)



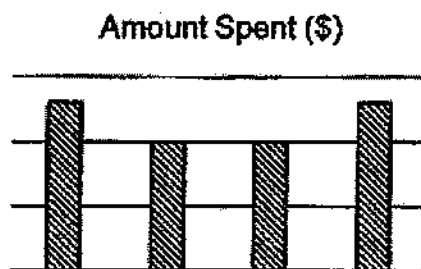
(2)



(3)



(4)





- 10 Which of the following is likely to be the volume of a can of soft drink?

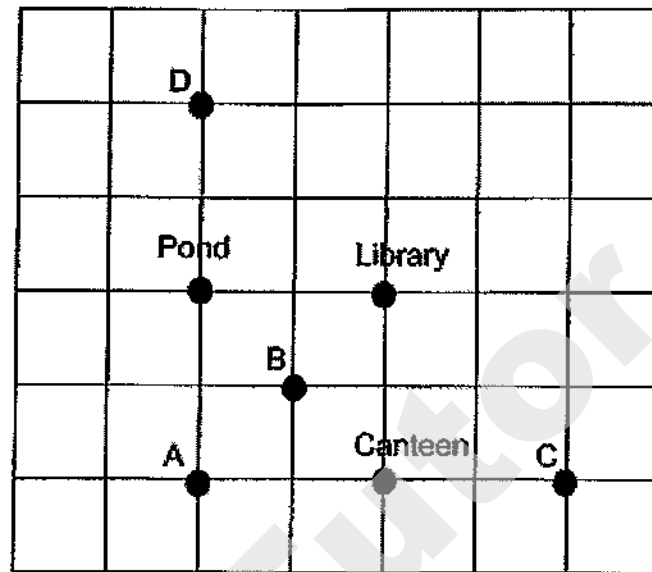


- (1) 3.3 ml  
(2) 33 ml  
(3) 330 ml  
(4) 3300 ml
- 11 Which of the following fractions is nearest to  $\frac{2}{3}$  ?

- (1)  $\frac{3}{4}$   
(2)  $\frac{5}{6}$   
(3)  $\frac{7}{9}$   
(4)  $\frac{1}{3}$



- 12 Seven landmarks on a map of a school are shown in the square grid below. The library is north of the pond. Samad is standing at a location south-east of the library and south of the canteen. Which landmark is Samad standing at?



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



- 13 Two of Object B are placed into a beaker on a weighing scale as shown in Figure 1. Object A is placed into an identical beaker as shown in Figure 2. Object A and Object B are placed into an identical beaker as shown in Figure 3. Find the mass of the empty beaker.

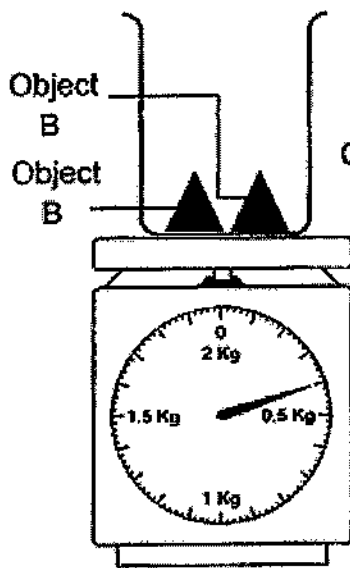


Figure 1

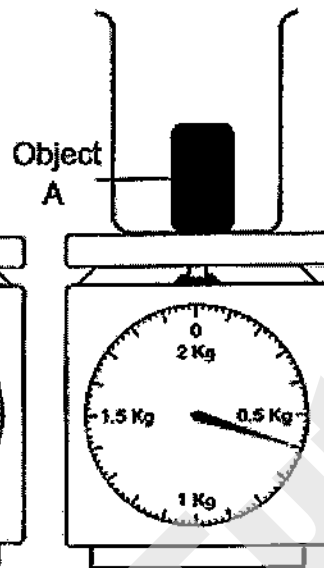


Figure 2

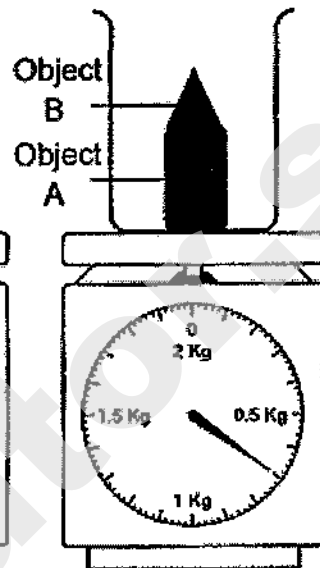


Figure 3

- (1) 0.1 kg
- (2) 0.2 kg
- (3) 0.3 kg
- (4) 0.4 kg



- 14 At a fruit stall, the price of 3 mangoes is the same as the price of 5 grapefruits. The price of 3 mangoes is also the same as the price of 10 pears. What is the ratio of the price of a mango to the price of a grapefruit to the price of a pear?

- (1) 3 : 10 : 5
- (2) 3 : 5 : 10
- (3) 10 : 3 : 6
- (4) 10 : 6 : 3

- 15 A repeated pattern is formed using the numbers 0, 1 and 2. The first 18 numbers are shown below.

2	0	2	1	2	0	2	0	2	1	2	0	2	0	2	1	2	0
1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>															18 <sup>th</sup>

What is the sum of the first 100 numbers?

- (1) 125
- (2) 117
- (3) 116
- (4) 113





NANYANG PRIMARY SCHOOL

**PRELIMINARY EXAMINATION  
2020**

**PRIMARY 6  
MATHEMATICS  
PAPER 1  
(BOOKLET B)**

Total Duration for Booklets A and B: 1 hour

**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: Primary 6 (       )

**Booklet B**

24 / 25

Please sign and return the paper the next day. Any queries should be raised at the same time when returning the paper.



Questions 16 to 20 carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (5 marks)

---

- 16 Find the value of  $\frac{5}{6} \times 24$

Ans: \_\_\_\_\_

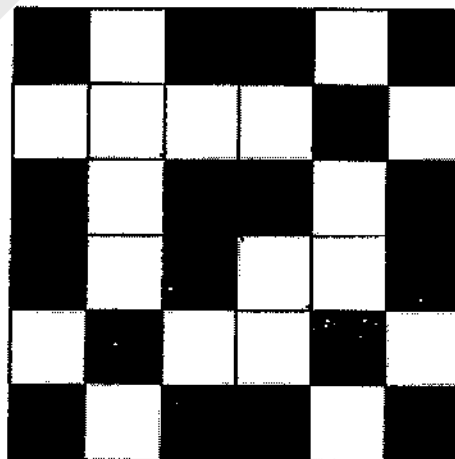
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- 17 Express 735 ml in litres.

Ans: \_\_\_\_\_ l

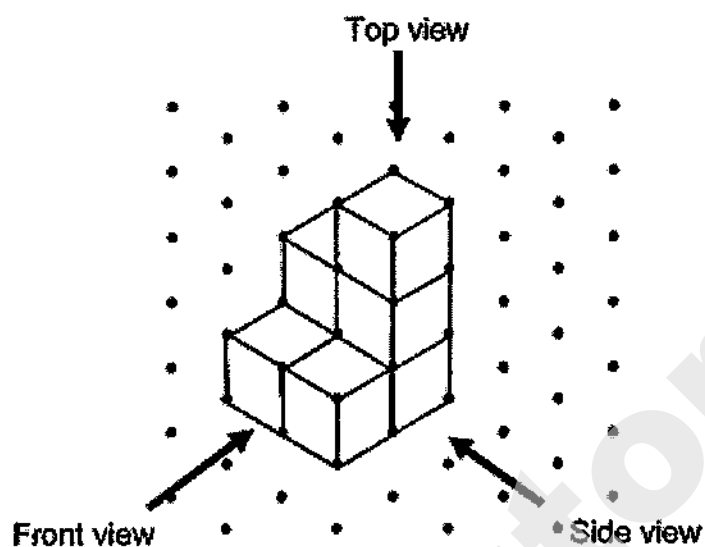
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- 18 There is 1 line of symmetry for the figure below. Draw in the line of symmetry.

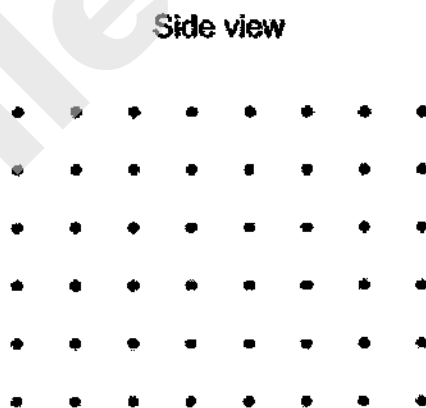




- 19 Yong Yi stacked 7 unit cubes and glued them together to form the solid below.

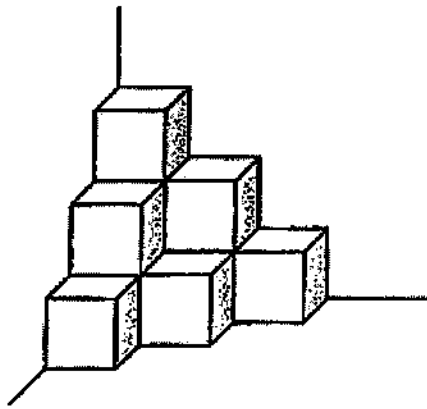


Draw the side view of the solid on the grid below.





- 20 The solid below is made up of 1-cm cubes. What is the volume of the solid?



Ans: \_\_\_\_\_  $\text{cm}^3$



Questions 21 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. (20 marks)

---

21 Write down all the common factors of 12 and 18.

Ans: \_\_\_\_\_

---

22 Mdm Hafiz bought a table for \$151.25 and a chair for \$24.15.

(a) How much did she spend altogether?

(b) Find the cost of 20 such tables.

Ans: (a) \$ \_\_\_\_\_

(b) \$ \_\_\_\_\_

---

23 Michelle started reading her book at 8.56 a.m. She stopped reading her book at 10.05 a.m. on the same day. How long did Michelle spend reading her book?

Ans: \_\_\_\_\_ h \_\_\_\_\_ min

---



- 24 Mrs Tay baked 120 cookies on Monday and 150 cookies on Tuesday. What was the percentage increase in the number of cookies baked on Tuesday compared to Monday?

Ans: \_\_\_\_\_ %

---

- 25 Nayla divided some beads equally into 2 groups. She packed the first group of beads equally into 4 boxes and the second group of beads equally into 6 packets. 2 such boxes and 5 such packets contained a total of 6016 beads. How many beads were there in one such packet?

Ans: \_\_\_\_\_

---

- 26 Calissa had a piece of cloth. She used  $\frac{1}{5}$  m of it to sew a handkerchief and  $\frac{3}{5}$  m of it to sew a pouch. She then had  $\frac{1}{4}$  m of the cloth left. What was the length of the piece of cloth Calissa had at first?

Ans: \_\_\_\_\_ m

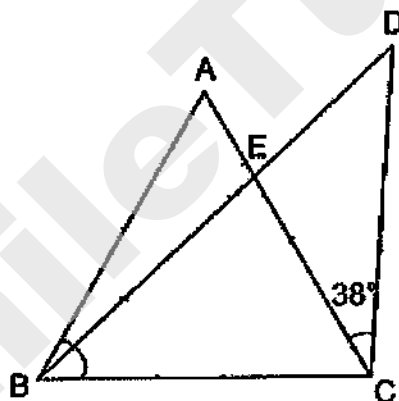
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- 27 Kyan had 5 kg of salt. He packed the salt into bags. Each bag contained  $\frac{3}{8}$  kg of salt. What was the greatest number of such bags of salt Kyan could have packed?

Ans: \_\_\_\_\_

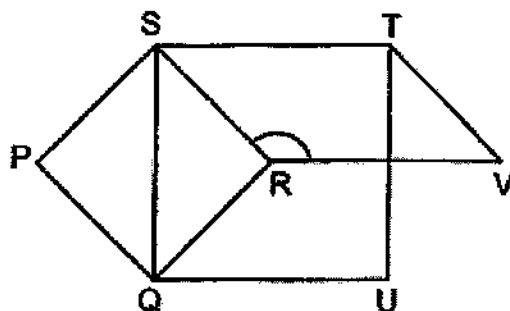
- 28 In the figure, ABC is an equilateral triangle.  $AB = CD$  and  $\angle ACD = 38^\circ$ . BED and AEC are straight lines. Find  $\angle AEB$ .



Ans: \_\_\_\_\_°



- 29 In the figure, PQRS and STUQ are two squares. STVR is a parallelogram. Find  $\angle SRV$ .



Ans: \_\_\_\_\_°

- 30 The table shows the number of toys produced by a factory from Monday to Sunday.

Day	Number of toys produced
Monday to Friday	$2y$ per day
Saturday	$4y - 3$
Sunday	$6y + 8$

Find the total number of toys produced in a week given that  $y = 5$ .

Ans: \_\_\_\_\_

End of Paper





NANYANG PRIMARY SCHOOL

**PRELIMINARY EXAMINATION  
2020**

**PRIMARY 6  
MATHEMATICS  
PAPER 2**

Duration: 1 hour 30 minutes

**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 an approved calculator is expected, where appropriate.

Name: \_\_\_\_\_ (       )

Class: Primary 6 (       )

Parent's Signature: \_\_\_\_\_

Booklet A	/ 20
Booklet B	/ 25
Paper 2	/ 55
Total	/ 100

Please sign and return the paper the next day. Any queries should be raised at the same time when returning the paper.



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 Carel had  $(5k + 13)$  shells at first. She added  $k$  more shells and the total number of shells she had became 151. How many shells did Carel add?

Ans: \_\_\_\_\_

---

- 2 Every minute, Machine A prints 3 pages. Every hour, Machine A and Machine B print a total of 450 pages. How many pages does Machine B print per hour?

Ans: \_\_\_\_\_

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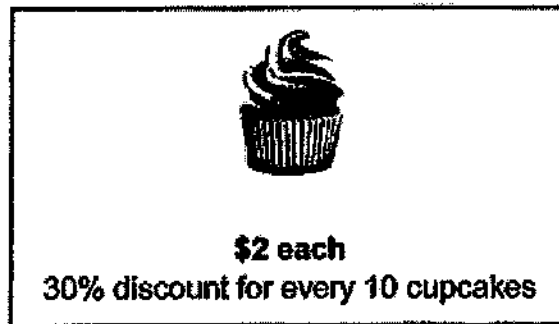
- 3 The average of four different 2-digit odd numbers is 27. Two of the numbers are 15 and 29. What could the other two numbers be?

Ans: \_\_\_\_\_, \_\_\_\_\_

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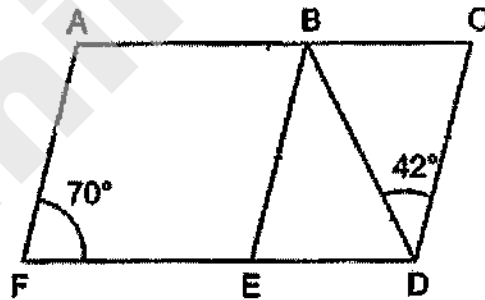
- 4 Diana was given \$30 to buy some cupcakes from a bakery.



What was the greatest number of cupcakes Diana could buy with all her money?

Ans: \_\_\_\_\_

- 5 ACDF and BCDE are parallelograms.  $\angle AFE = 70^\circ$  and  $\angle CDB = 42^\circ$ . Find  $\angle BDE$ .



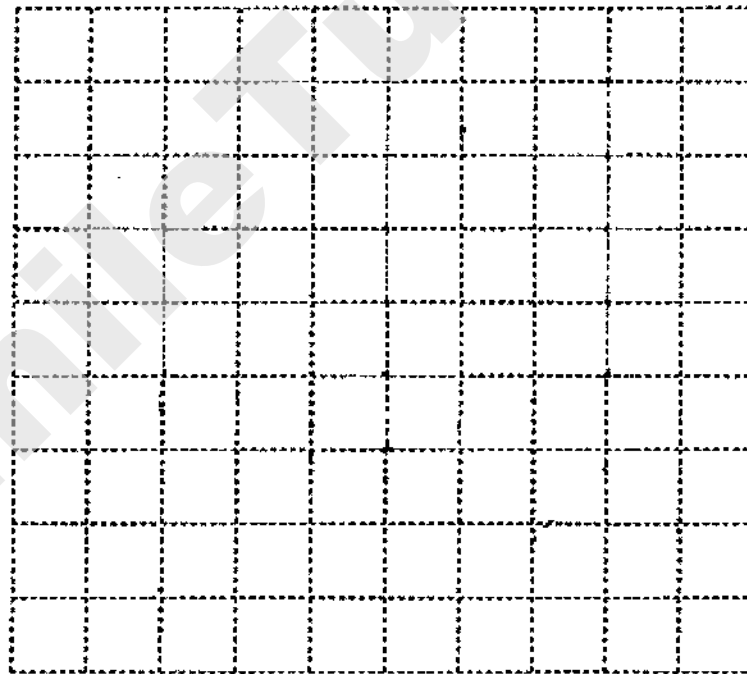
Ans: \_\_\_\_\_°



For questions 6 to 17, 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. (45 marks)

6 In the square grid below, JK and KL are straight lines.

- (a) Measure and write down the size of  $\angle JKL$ .
- (b) JK and KL form two sides of a trapezium JKLM. JM is parallel to KL. KL is twice the length of JM. Complete the drawing of trapezium JKLM.
- (c) KL forms one side of a parallelogram KLPN. The length of JP is twice the length of KP and JKP forms a straight line. Complete the drawing of parallelogram KLPN such that it does not overlap with the trapezium.



[2]

Ans: (a) \_\_\_\_\_ [1]



- 7 Heidi bought 4 staplers and 6 files. Each stapler cost \$1.20 more than each file. The total cost of the files was \$6.40 more than the total cost of the staplers. Find the cost of one stapler.

Ans: \_\_\_\_\_ [3]

---

- 8 Maggie baked some pies and muffins. The number of pies was  $\frac{7}{11}$  of the number of muffins. Maggie gave away 6 pies and 14 muffins. In the end, the number of pies left was equal to the number of muffins left. How many pies and muffins did Maggie bake altogether?

Ans: \_\_\_\_\_ [3]

---



- 9 Three children received their scores for a Mathematics test. The average scores of any two of the three children are listed below.

Average Scores
83
86
94

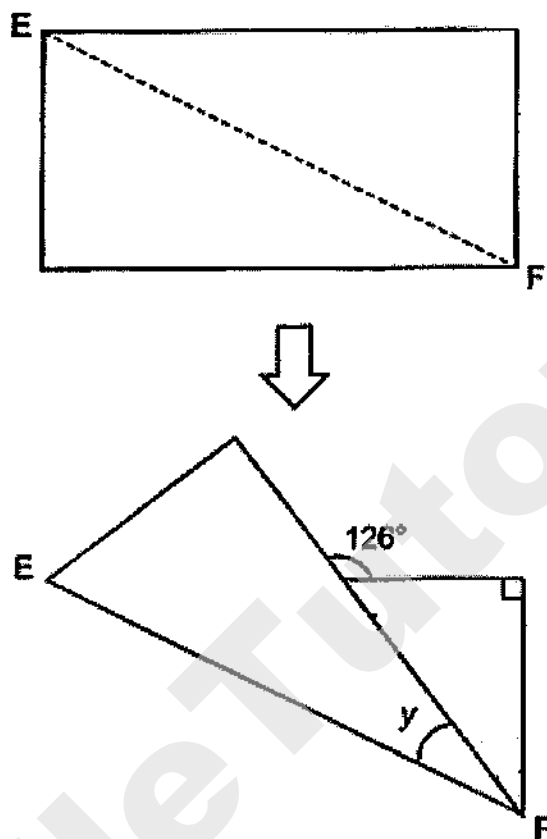
What was the highest score among the three children?

Ans: \_\_\_\_\_ [3]

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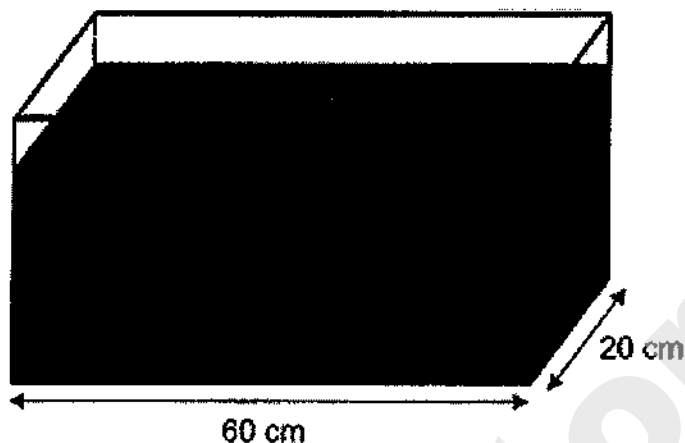
- 10 Susie had a rectangular piece of paper. She folded the piece of paper along the line EF. Find  $\angle y$ .



Ans: \_\_\_\_\_ [3]



- 11 A rectangular tank measuring 60 cm long and 20 cm wide was  $\frac{4}{5}$  - filled with water at first. After Matthias poured some water from the tank into some identical jugs, the height of the water level decreased by 18 cm. Each jug can hold at most 2.25 ℓ of water.



- (a) What was the least number of such jugs used?

Ans: (a) \_\_\_\_\_ [3]

- (b) Each of the statements below is either true, false or not possible to tell from the information given.  
For each statement, put a tick (✓) to indicate your answer.

Statement	True	False	Not possible to tell
20% of the tank was not filled with water at first.			
The height of the tank is 22 cm.			

[1]



- 12 Edwina and Georgia had the same number of bottles. Edwina and Georgia each had a mix of big bottles and small bottles. Edwina had 5 small bottles while Georgia had 16 big bottles. Each small bottle had a capacity of 400 ml. Each big bottle had a capacity of 0.6 l. The total capacity of Edwina's bottles was 0.8 l more than the total capacity of Georgia's bottles.

- (a) How many big bottles did Edwina have?
- (b) What was the total capacity of Edwina's bottles?

Ans: (a) \_\_\_\_\_ [3]

(b) \_\_\_\_\_ [1]



- 13 The table below shows the number of pupils who wear glasses in Primary 3A and the number of girls who wear glasses in Primary 3B. The number of boys who wear glasses in Primary 3B is not shown. The total number of pupils in each class is fewer than 40.

Class	Gender	Number of pupils who wear glasses
3A	Boys	12
	Girls	11
3B	Boys	?
	Girls	10

- (a) The total number of pupils in Primary 3A can be divided equally into 4 groups with no pupils leftover. The total number of pupils in Primary 3A can also be divided equally into 6 groups with no pupils leftover. There are 2 girls in Primary 3A who do not wear glasses. How many boys in Primary 3A do not wear glasses?
- (b) The total number of boys in Primary 3B is  $\frac{5}{8}$  of the total number of pupils in Primary 3B. How many girls in Primary 3B do not wear glasses?

Ans: (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [2]



- 14** There were three types of fruit in a box. The ratio of the number of mangoes to the total number of apples and oranges was 2 : 5. The ratio of the number of apples to the number of oranges was 9 : 1. There were 30 more apples than mangoes. After some mangoes were added into the box, 70% of the fruits in the box were mangoes.

- (a) How many mangoes were there in the end?
- (b) How many mangoes were added in the box?

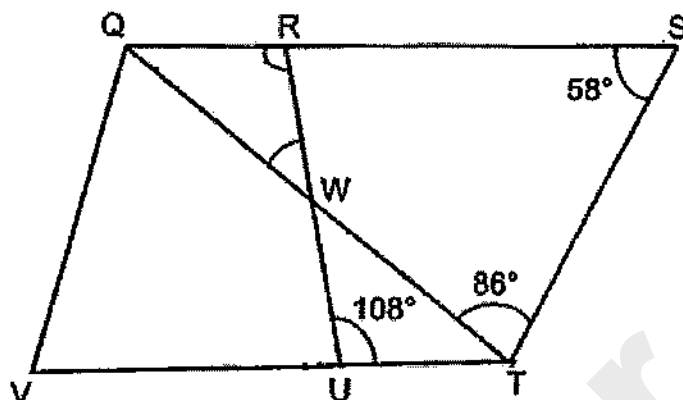
Ans: (a) \_\_\_\_\_ [3]

(b) \_\_\_\_\_ [1]

---



- 15 QRUV and RSTU are trapeziums. QRS, VUT and QWT are straight lines. QS is parallel to VT.  $\angle QST = 58^\circ$ ,  $\angle STQ = 86^\circ$  and  $\angle RUT = 108^\circ$ .



- (a) Find  $\angle RWQ$ .

Ans: (a) \_\_\_\_\_ [2]

- (b) In the following statement, circle the words that describe QRW correctly and fill in the blanks accordingly:

QRW ( is / is not ) an isosceles triangle because

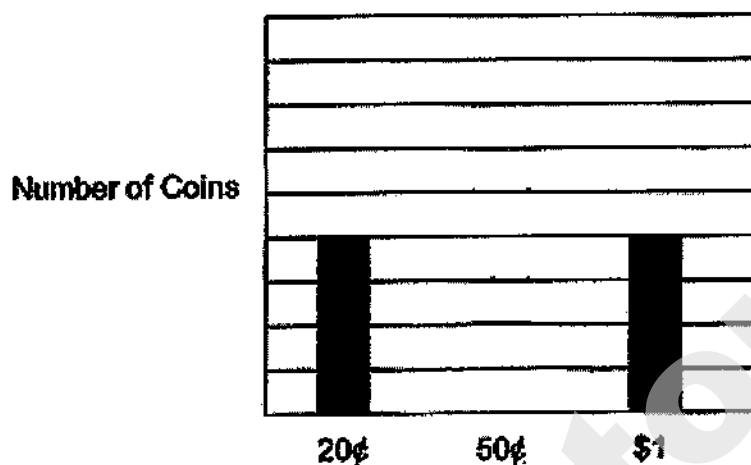
$\angle RQW$  ( is / is not ) equal to  $\angle RWQ$

Show your working clearly to explain your answer.

[2]



- 16** The bar graph below shows the types of coin that Max had in his piggy bank. The number of 50¢ coins he had was not shown in the graph.



[3]

He had \$44 altogether. The total amount of \$1 coins that he had was \$16 more than the total amount of 20¢ coins that he had.

- (a) How many 20¢ coins did he have?
- (b) Draw the bar for the number of 50¢ coins that Max had in the graph above.

Ans: (a) \_\_\_\_\_ [2]







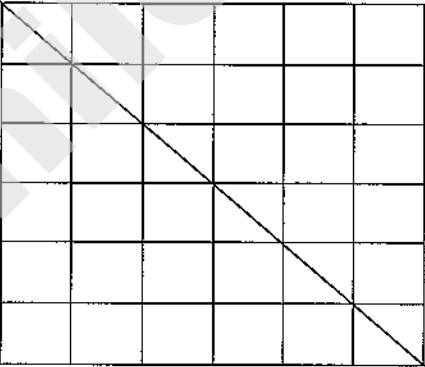
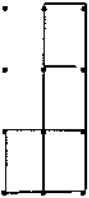
SCHOOL : NANYANG PRIMARY SCHOOL  
 LEVEL : PRIMARY 6  
 SUBJECT : MATH  
 TERM : 2020 PRELIM

**PAPER 1 BOOKLET A**

Q 1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
2	1	3	3	1	4	2	4	3	3

Q 11	Q12	Q13	Q14	Q15
1	1	2	4	2

**PAPER 1 BOOKLET B**

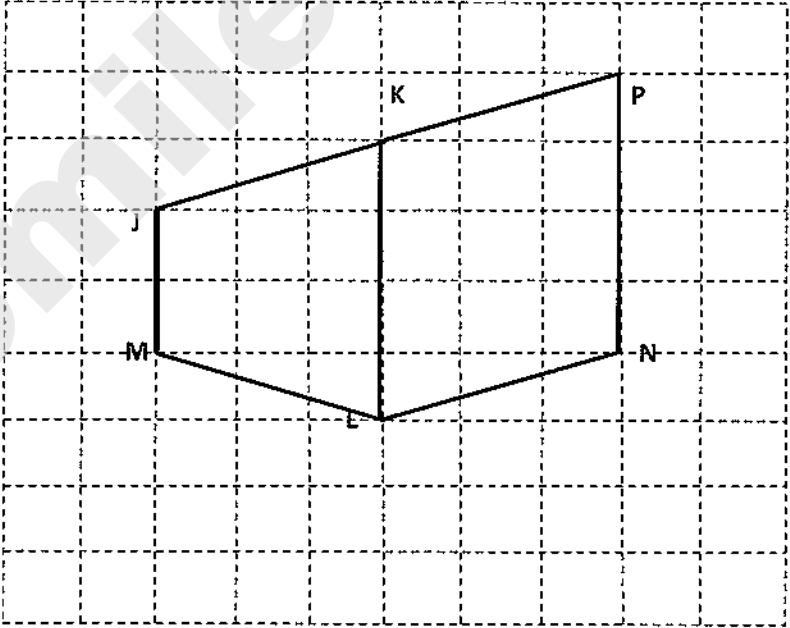
Q16)	20
Q17)	$0.735\ell$
Q18)	
Q19)	



Q20)	$6 + 3 + 1 = 10 \text{ cm}^3$
Q21)	$\begin{array}{cc} \underline{12} & \underline{18} \\ 1 \times 12 & 1 \times 18 \\ 2 \times 6 & 2 \times 9 \\ 3 \times 4 & 3 \times 6 \end{array}$ <p>ANS: 1,2,3,6</p>
Q22)	<p>a) <math>\\$151.25 + \\$24.15 = \\$175.40</math></p> <p>b) <math>\\$151.25 \times 20 = \\$3025</math></p>
Q23)	<p style="text-align: center;"> <math>\begin{array}{ccccc} &amp; 9 \text{ min} &amp; &amp; 1 \text{ h} &amp; \\   &amp;   &amp;   &amp;   &amp;   \\ 8.56 \text{ a.m.} &amp; &amp; 9.05 \text{ a.m.} &amp; &amp; 10.05 \text{ a.m.} \end{array}</math> </p> <p>ANS: 1 h 9 min</p>
Q24)	$150 - 120 = 30$ $\frac{30}{120} \times 100\% = 25\%$
Q25)	$4B \rightarrow 6p$ $2B + 5p = 6016$ $4B + 10p \rightarrow 12032$ $6p + 10p \rightarrow 12032$ $16p \rightarrow 12032$ $p \rightarrow 12032 \div 16 = 752$
Q26)	$\frac{1}{5} + \frac{3}{5} + \frac{1}{4} = \frac{4}{12} + \frac{12}{20} + \frac{5}{20} = \frac{21}{20} \text{ m}$
Q27)	$5 \div \frac{3}{8} = 5 \times \frac{8}{3} = \frac{40}{3} = 13\frac{1}{3} \approx 13$
Q28)	$180^\circ \div 3 = 60^\circ$ $(180^\circ - 38^\circ - 60^\circ) \div 2 = 41^\circ$ $180^\circ - 60^\circ - 41^\circ = 79^\circ$ $180^\circ - 79^\circ = 101^\circ$
Q29)	$90^\circ \div 2 = 45^\circ$ $180^\circ - 45^\circ = 135^\circ$
Q30)	<p>Total <math>\rightarrow (2yx5) + 4y - 3 + 6y + 8 = 100 + 5</math></p> <p><math>= 105</math></p>



## PAPER 2

Q1)	$5k + 13 + k = 6k + 13$ $6k \rightarrow 151 - 13 = 138$ $k \rightarrow 138 \div 6 = 23$
Q2)	$1h = 60min$ $3 \times 60 = 180$ $450 - 180 = 270$
Q3)	$27 \times 4 = 108$ $108 - 15 - 29 = 64$ $37 + 27 = 64$ $(37+27+15+29) \div 4 = 27$  <b>ANS: 37 , 27</b>
Q4)	$1 \text{ set} \rightarrow (\$2 \times 10) \times (100\% - 30\%) = \$14$ <b>No.of sets <math>\rightarrow \\$30 \div \\$14 = 2 \text{ R } \\$2 \rightarrow 1 \text{ cupcake}</math></b> $2 \times 10 + 1 = 21$
Q5)	$180^\circ - 70^\circ - 42^\circ = 68^\circ$
Q6)	<p>a) <math>71^\circ</math></p> 



Q7)	$1S \rightarrow 1F + \$1.20$ $4S \rightarrow 4F + \$4.80$ $6F \rightarrow 4F + \$4.80 + \$6.40$ $2F \rightarrow \$4.80 + \$6.40 = \$11.20$ $1F \rightarrow \$11.20 \div 2 = \$5.60$ $1S \rightarrow \$5.60 + \$1.20 = \$6.80$
Q8)	$11u - 7u = 4u$ $4u \rightarrow 14 - 6 = 8$ $u \rightarrow 8 \div 4 = 2$ $7u + 11u = 18u$ $18u \rightarrow 2 \times 18 = 36$
Q9)	$83 \times 2 = 166$ $86 \times 2 = 172$ $94 \times 2 = 188$ $166 + 172 + 188 = 526$ $526 \div 2 = 263$ (total) Highest : 95 / 96 / 97 $263 - 97 = 166$ $188 - 97 = 91$ $166 - 91 = 75$ $(75 + 91) \div 2 = 83$ $(97 + 75) \div 2 = 86$ ANS: 97
Q10)	$180^\circ - 126^\circ = 54^\circ$ $180^\circ - 90^\circ - 54^\circ = 36^\circ$ $(90^\circ - 36^\circ) \div 2 = 27^\circ$
Q11)	a) $60 \times 20 \times 18 = 21600$ $21600 \text{ cm}^3 = 21.6 \text{ } \ell$ $21.6 \text{ } \ell \div 2.25 \text{ } \ell \approx 10$ b) True False
Q12)	a) 20 b) 14000ml
Q13)	a) $11 + 12 + 2 = 25$ $36 - 25 = 11$ b) 2



Q14)	$\begin{array}{r} \text{M} : \text{A} \\ 2 : 5 \\ \hline \text{X2} \quad \text{x2} \\ 4 : 10 \end{array}$ $\begin{array}{r} \text{A} = 0 \\ 9 = 1 \end{array}$ $\begin{array}{l} 5u \rightarrow 30 \\ 1u \rightarrow 30 \div 5 = 5 = 6 \\ 4u \rightarrow 6 \times 4 = 24 \text{ (m)} \\ 10u \rightarrow 6 \times 10 = (A + 0) \\ 30\% \rightarrow 60 \\ 1\% \rightarrow \frac{60}{30} = 2 \\ 70\% \rightarrow 2 \times 70 = 140 \end{array}$ $\text{b) } 140 - 24 = 116$
Q15)	$\text{a) } 36^\circ$ $\text{b) } \text{is} / \text{ is}$
Q16)	$\begin{array}{l} \text{a) } \$1 - \$0.20 = \$0.80 \\ \$16 \div \$0.80 = 20 \\ \text{b) } 20 \times \$0.20 = \$4 \\ 20 \times \$1 = \$20 \\ \$44 - \$20 - \$4 = \$20 \text{ (50¢)} \\ \$20 \div 0.50 = 40 \end{array}$
Q17)	$\begin{array}{l} \text{a) } 400 \div 4 = 100 \\ \sqrt{100} = 10\text{cm} \\ \text{b) } \frac{1}{4} \times 3.14 \times 25 = 78.5 \\ 78.5 - 50 = 28.5 \text{ (half leaf)} \\ 28.5 \times 2 = 57 \text{ (1 leaf)} \\ 2 \text{ } \bigcirc + 3 \text{ } \bigcirc \rightarrow 12 \text{ } \bigcirc \\ 78.5 \times 12 = 942 \\ 942 + 285 = 1228\text{cm}^2 \end{array}$





**RAFFLES GIRLS' PRIMARY SCHOOL  
PRELIMINARY EXAMINATION  
MATHEMATICS (PAPER 1)  
PRIMARY 6**

Name: \_\_\_\_\_ (      )

Form Class: P6 \_\_\_\_\_

Math Teacher :

Date: 19 Aug 2020

Duration: 1 hour

<b>Your Paper 1 Score (Out of 45 marks)</b>	
<b>Your Paper 2 Score (Out of 55 marks)</b>	
<b>Your Total Score (Out of 100 marks)</b>	
<b>Parent's Signature</b>	

**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.



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 your answer (1, 2, 3 or 4) on the OAS provided.  
All diagrams are not drawn to scale. (20 marks)

---

1. The value of the digit 5 in 954 687 is \_\_\_\_\_.

- (1) 500
- (2) 5000
- (3) 50 000
- (4) 500 000

2. Which one of the following is closest to 1?

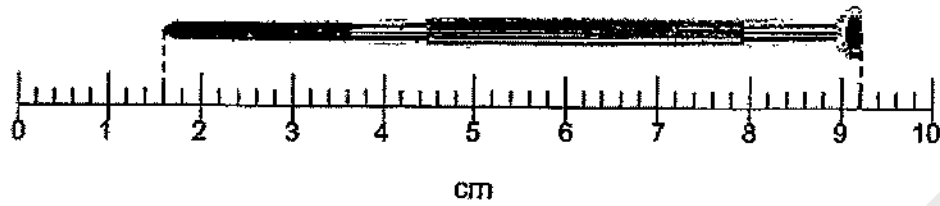
- (1)  $1\frac{1}{7}$
- (2)  $1\frac{1}{6}$
- (3)  $1\frac{1}{9}$
- (4)  $1\frac{1}{8}$

3. Round off 28 784 to the nearest tenth.

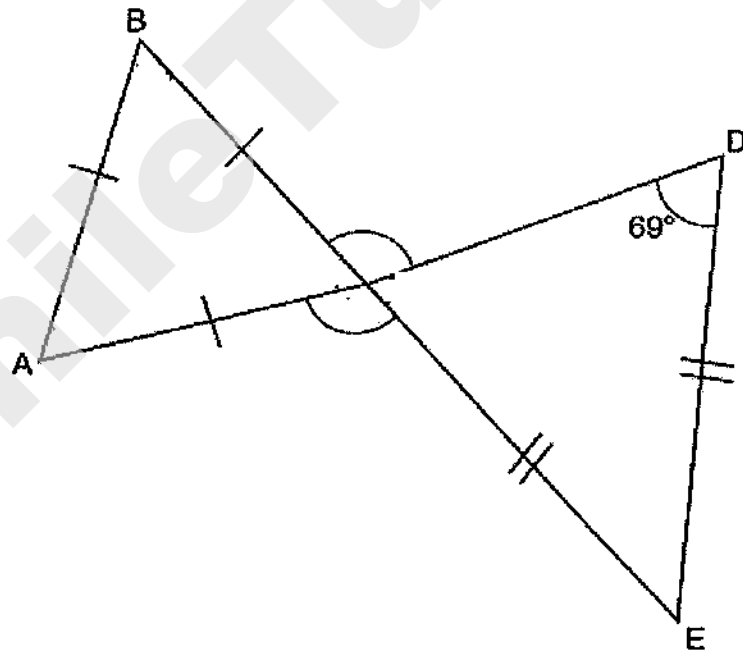
- (1) 28.7
- (2) 28.8
- (3) 29.0
- (4) 30.0



4. What is the length of the screw driver?



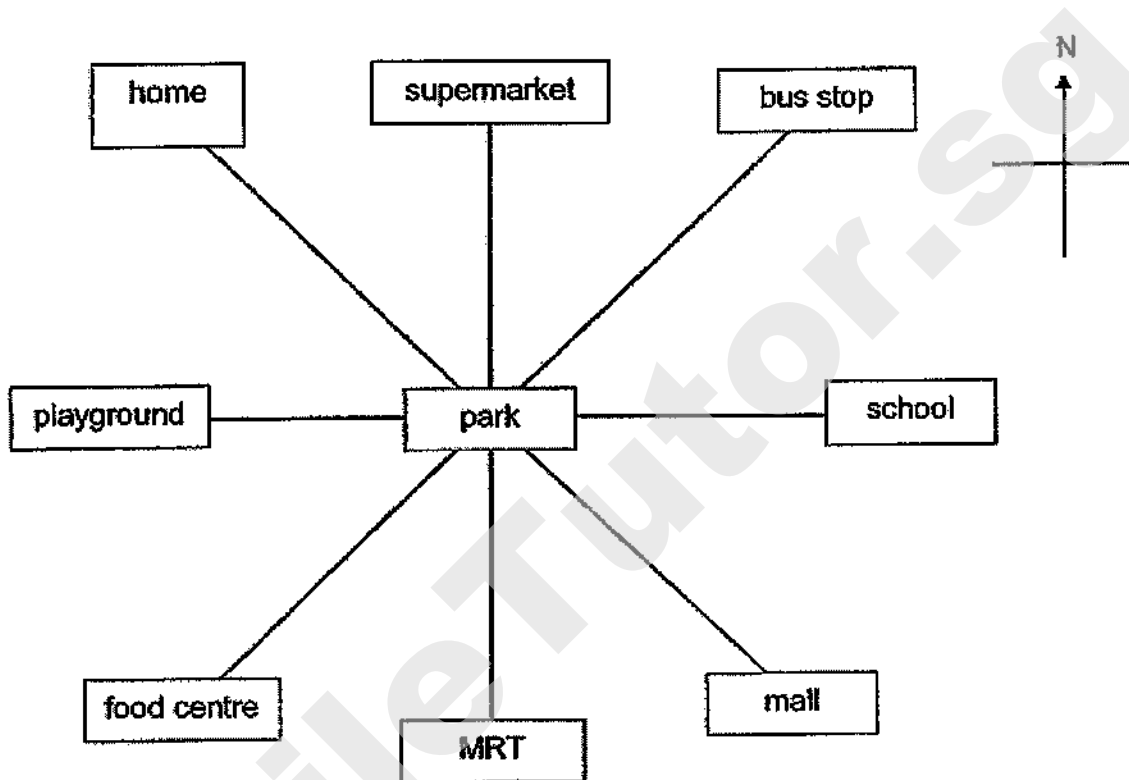
- (1) 7.3 cm  
(2) 7.6 cm  
(3) 9.1 cm  
(4) 9.2 cm
5. In the figure, ABC is an equilateral triangle. CDE is an isosceles triangle. BCE is a straight line.  $\angle CDE = 69^\circ$ . Find the sum of  $\angle BCD$  and  $\angle ACE$ .



- (1)  $129^\circ$   
(2)  $222^\circ$   
(3)  $231^\circ$   
(4)  $240^\circ$



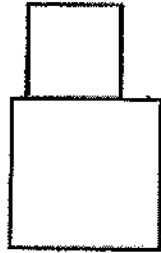
6. Gordon was at the park. He turned an angle of  $315^\circ$  anti-clockwise to face the direction of his home. Where was he facing before the turn?



- (1) playground
- (2) supermarket
- (3) food centre
- (4) bus stop



7. The figure is made up of 2 squares. The area of the 2 squares are  $64 \text{ cm}^2$  and  $25 \text{ cm}^2$ . What is the perimeter of the figure?

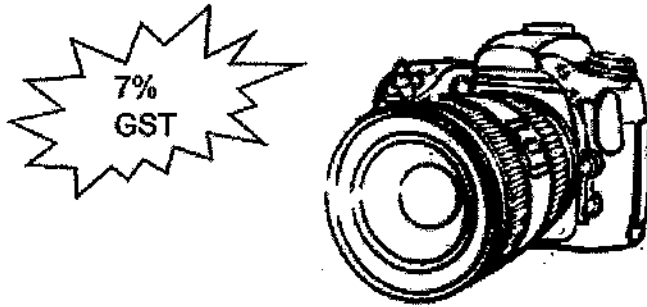


- (1) 42 cm  
(2) 47 cm  
(3) 52 cm  
(4) 89 cm
8. Abel had 3 times as many books as Thomas. Abel donated  $\frac{1}{4}$  of his books to charity. What was the ratio of the number of books Thomas had to the number of books Abel had in the end?

- (1) 3 : 4  
(2) 4 : 9  
(3) 9 : 4  
(4) 9 : 7



9. Calvin bought a camera. The GST amount was \$70. How much did he pay for the camera inclusive of GST?



- (1) \$107  
(2) \$170  
(3) \$1000  
(4) \$1070
10.  $3 + 6a = 27$ . What is the value of  $a$ ?
- (1) 180  
(2) 144  
(3) 5  
(4) 4
11. Ai Lin bought 2 tables and 20 chairs for her office. She spent \$120 more on the tables than the chairs. She spent a total of \$840. How much did she spend on one chair?
- (1) \$18  
(2) \$24  
(3) \$180  
(4) \$360



12.  $\frac{1}{2}$  of Janice's mass is the same as  $\frac{1}{5}$  of Randy's mass.

Their total mass is 49.14 kg. Find Janice's mass.

- (1) 7.02 kg
- (2) 14.04 kg
- (3) 14.4 kg
- (4) 35.1 kg

13. A dining table was sold at a discount. The discounted price was 20% less than the usual price. The usual price was \$720. How much was the discount?

- (1) \$20
- (2) \$120
- (3) \$144
- (4) \$576

14. Ali and Zainal each bought the same mass of minced meat. They prepared each patty with the same mass of minced meat. Ali made 20 patties and had 5.6 kg of minced meat left. Zainal made 60 patties and had 400 g of minced meat left. What was the mass of minced meat used for each patty?

- (1) 65 g
- (2) 75 g
- (3) 130 g
- (4) 150 g



15. Tap A can fill a pail in 6 min. Tap B can fill the same pail in 3 min. How long would it take to fill the pail completely when both taps are turned on at the same time?
- (1) 0.5 min
  - (2) 2 min
  - (3) 4.5 min
  - (4) 9 min



Questions 16 to 20 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. (5 marks)

---

16. Find the value of  $50 - (24 \div 2 \times 3) + 4$ .

Ans: \_\_\_\_\_

17. When a flight departed from Singapore, the time in Perth was 8.50 p.m.  
The flight arrived in Perth 5 h 15 min later. At what time in Perth did the  
flight arrive? Give your answer in 24-hour clock.

Ans: \_\_\_\_\_

18. Express  $\frac{78}{9}$  as a mixed number in the simplest form.

Ans: \_\_\_\_\_



19. Find the sum of 11 tens, 1 tenth and 10 hundredths.

Ans: \_\_\_\_\_

20. Find the average of 180 cm and 1.2 m. Leave your answer in metres.

Ans: \_\_\_\_\_m



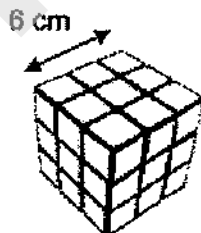
Questions 21 to 30 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. All diagrams are not drawn to scale. (20 marks)

---

21. Pillai mixed milk and rose syrup to make a drink. He used  $\frac{7}{8}$  ℓ of milk. The amount of rose syrup used was  $\frac{1}{6}$  ℓ less than the milk used. How much milk and rose syrup did Pillai use altogether? Leave your answer as a mixed number in the simplest form.

Ans: \_\_\_\_\_ ℓ

22. Alex has a box measuring 40 cm by 50 cm by 60 cm. He wants to pack identical rubik's cubes of edge 6 cm into the box. What is the maximum number of rubik's cubes he can pack into the box?



Ans: \_\_\_\_\_



23. Mrs Delvi had  $24n$  cookies. She distributed all of them equally to 8 of her grandchildren. Then, one of her grandchildren, Heidi, ate 4 cookies. How many cookies had Heidi left? Leave your answer in terms of  $n$ .

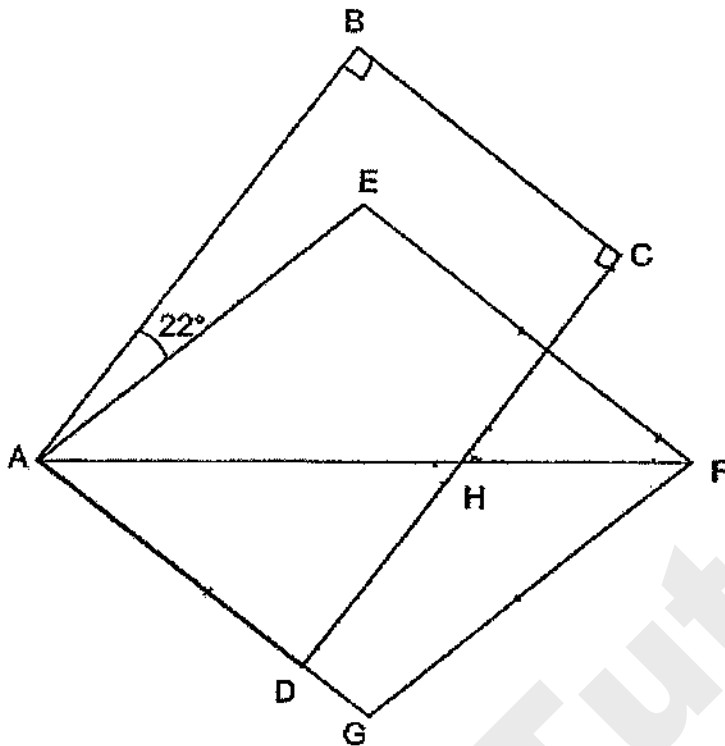
Ans: \_\_\_\_\_

24. There were equal number of male and female members at a gym. After 265 male members and 545 female members cancelled their gym membership, the number of remaining male members was 9 times that of the remaining female members. How many female members remained at the gym?

Ans: \_\_\_\_\_



25. In the figure, ABCD is a rectangle and AEFG is a rhombus. AHF is a straight line and  $\angle BAE = 22^\circ$ . Find  $\angle CHF$ .



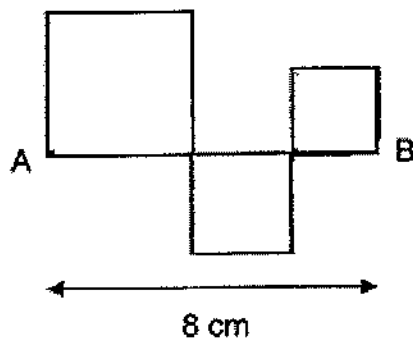
Ans: \_\_\_\_\_°

26. Anna needed 20 pieces of wires, each of length 0.3 m. The wires were sold in rolls of 2 m each. What was the least number of rolls of wire that Anna needed to buy?

Ans: \_\_\_\_\_



27. The figure is made up of 3 squares. AB is a straight line. What is the perimeter of the figure?



Ans: \_\_\_\_\_ cm

28. The table shows the rate for renting a karaoke room at a community club.

First 2 hours	\$9 per hour
Every additional 30 min	\$8 per 30 min

A group of friends paid a total of \$42 for the rental of a karaoke room.  
How many hours did they rent the karaoke room for?

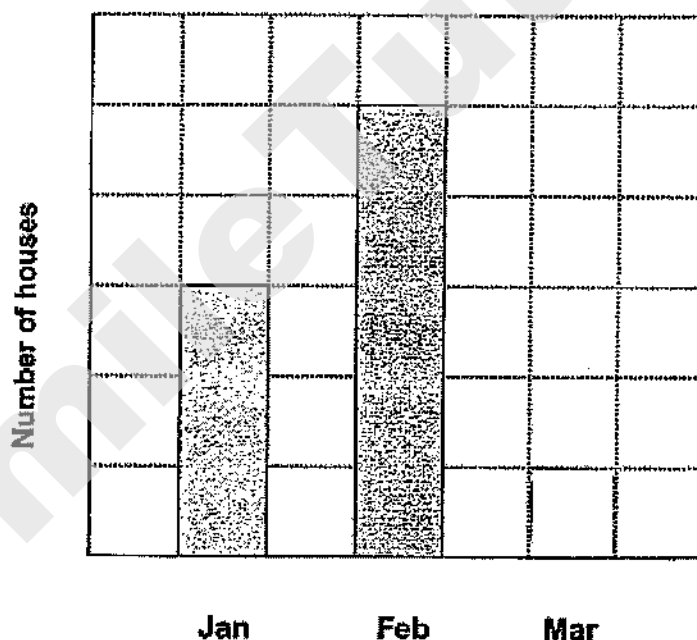
Ans: \_\_\_\_\_ h



29. Sara had  $\frac{5}{6}$  m<sup>2</sup> of fabric. She cut out  $\frac{1}{4}$  of it and used the remaining fabric to make 5 identical masks. How much fabric did she use to make 1 mask?

Ans: \_\_\_\_\_ m<sup>2</sup>

30. The graph shows the number of houses sold from January to March. The bar for the number of houses sold in March has not been drawn.



The total number of houses sold in February and March was  $\frac{2}{3}$  of the total number of houses sold over the 3 months.

Complete the graph by shading to show the number of houses sold in March.

**End of Paper**  
Please check your work carefully ☺



SmileTutor.sg





**RAFFLES GIRLS' PRIMARY SCHOOL  
PRELIMINARY EXAMINATION  
MATHEMATICS (PAPER 2)  
PRIMARY 6**

Name: \_\_\_\_\_ (    )

Form class: P6 \_\_\_\_\_

Math Teacher :

Date: 19 Aug 2020

Duration: 1 h 30 min

**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.  
For questions which require units, give your answers in the units stated.  
All diagrams are not drawn to scale. (10 marks)

---

1. There were 538 females and 306 males at a carnival. 110 females left and 25 males entered the carnival. What was the percentage decrease in the total number of people at the carnival? Round your answer to the nearest 1 decimal place.

Ans : \_\_\_\_\_ %

2. The table shows the points scored by 3 children in a game.

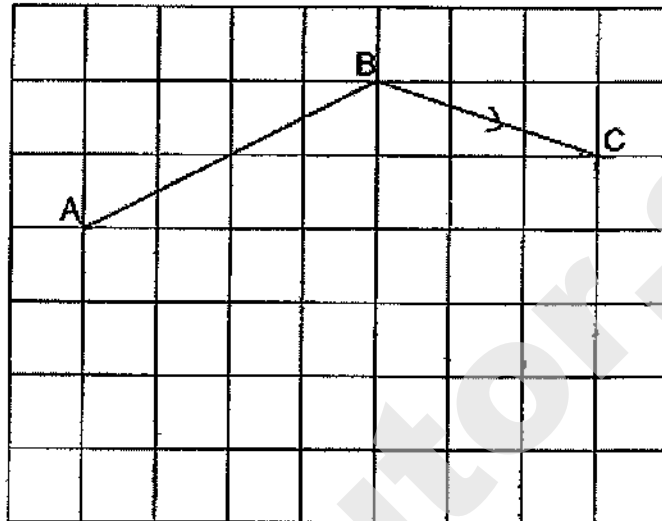
Participants	Ali	Bala	Charlie
Score	21	?	?

Their total score was 135. All their scores were 2-digit numbers. What was the lowest possible score among the 3 of them?

Ans: \_\_\_\_\_



3. In the square grid, AB and BC form two sides of a trapezium ABCD.  
There are 2 right angles in ABCD.  
Complete the drawing of trapezium ABCD.



4. Amos is 12 years younger than his sister. The ratio of Amos' age to his sister's age is 1 : 5. In how many years' time will the ratio of Amos' age to his sister's age be 2 : 5?

Ans : \_\_\_\_\_ years



5. The table shows the number and the cost of each type of flowers sold at a florist.

Flower	Number of flowers sold	Cost
Rose	135	\$2 each
Lily	2y	\$2.50 each
Carnation	4y	4 for \$5

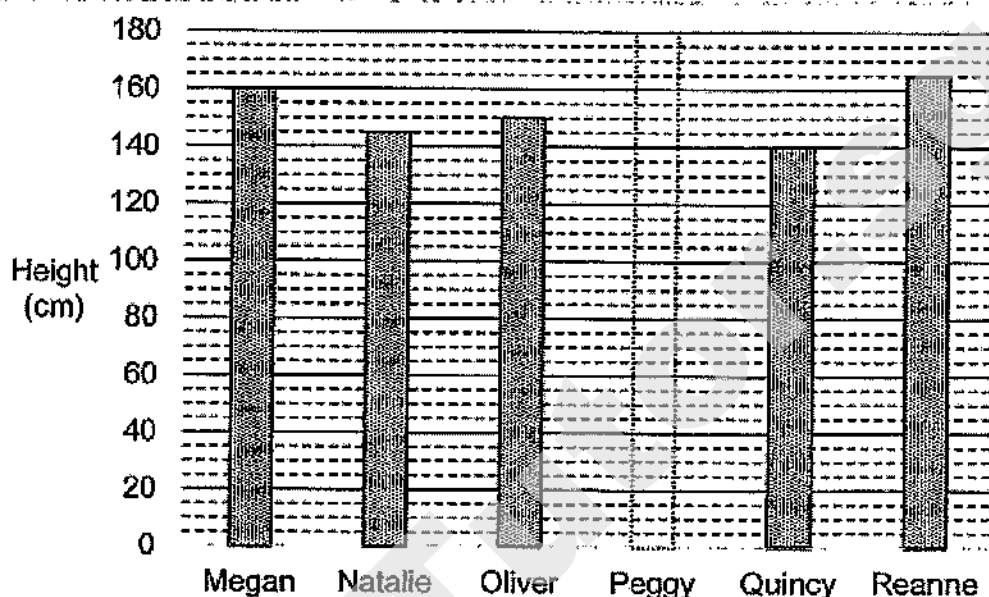
Each of the statements below is either true, false or not possible to tell from the information given. For each statement, put a tick(✓) to indicate your answer.

Statement	True	False	Not possible to tell
(a) If the total number of flowers sold was 405, 180 carnations were sold.			
(b) The amount of money collected from selling the lilies and the carnations were the same.			
(c) The amount of money collected from selling the roses was the highest among the 3 types of flowers.			



For questions 6 to 17, 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 the brackets [ ] at the end of each question or part-question. All diagrams are not drawn to scale. (45 marks)

6. The bar chart shows the height of 6 people. The bar that shows Peggy's height has not been drawn.



Peggy's height was 20 cm more than the average height of Quincy and Megan.

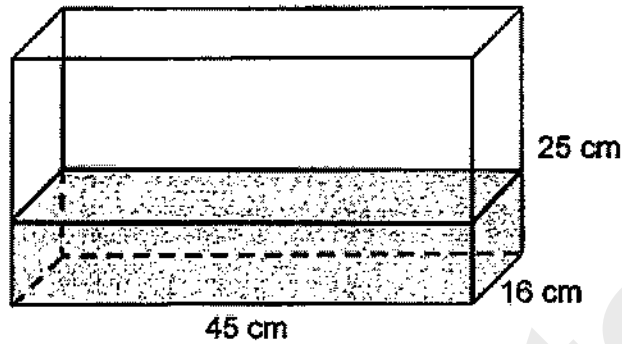
- (a) What was the height of Peggy?  
(b) Who was/were taller than the average height of all the people?

Ans: (a) \_\_\_\_\_ [2]

Ans: (b) \_\_\_\_\_ [2]



7. A rectangular tank measuring 45 cm by 16 cm by 25 cm was  $\frac{1}{3}$  filled with water. After water from some identical bottles was poured into the rectangular tank, it became  $\frac{7}{8}$  full. The capacity of each bottle was 650 ml. What was the minimum number of bottles used to pour the water into the rectangular tank?



Ans: \_\_\_\_\_ [3]



8. Mr Choo needs a total of 15 h to prepare 1800 rice dumplings. He prepares the same number of rice dumplings every hour. When his wife helps him for 4 h, 1800 rice dumplings can be prepared in 9 h.
- (a) What is the average number of rice dumplings that Mr Choo's wife prepares in the 4 hours?
- (b) What is the difference in the time taken between Mr Choo and his wife if she prepares 1800 rice dumplings alone?

Ans: (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [2]



9. At its year-end sale, a company sold calendars and diaries at the prices shown.

**Year-End Clearance Sale**



Calendars  
6 for \$37



Diaries  
8 for \$99

An equal number of calendars and diaries were sold. The company collected a total of \$29 815 from the sale of calendars and diaries. How many calendars and diaries did the company sell in all?

Ans: \_\_\_\_\_ [3]



10. In a school, 55% of the pupils are girls and the rest are boys. As a school, 40% of the boys wear spectacles and 60% of the pupils wear spectacles.

(a) What percentage of the pupils are girls who wear spectacles?

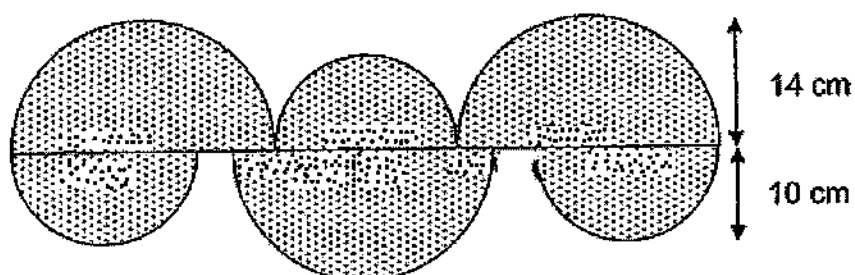
(b) 208 girls do not wear spectacles. How many pupils are there altogether?

Ans: (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [1]



11. The figure is formed by 3 identical big semicircles and 3 identical small semicircles.



Use the calculator value of  $\pi$  to find the perimeter of the figure.  
Round your answer to 2 decimal places.

Ans: \_\_\_\_\_ [3]



12. The figure shows a parallelogram PQRS drawn on a grid.

(a) PRTU is a rectangle that has half the area of PQRS.

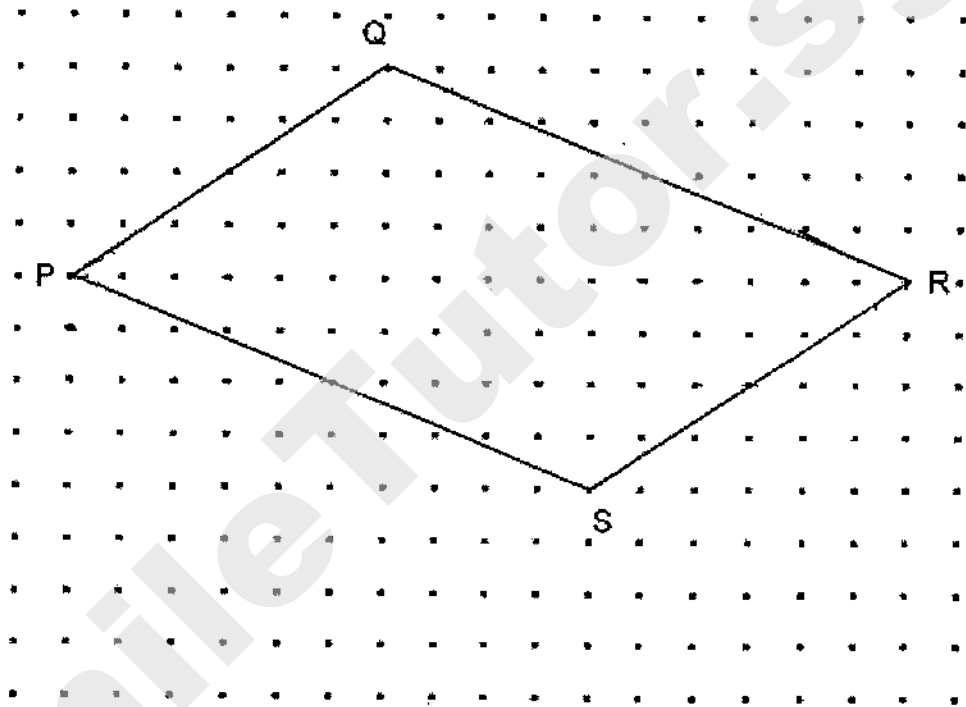
Draw PRTU on the grid.

[2]

(b) PRV is an isosceles triangle that has the same area as rectangle PRTU.

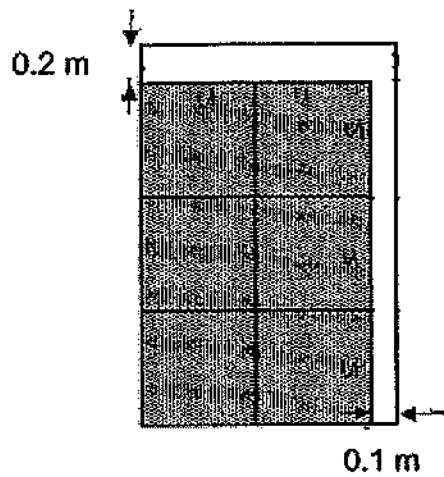
Draw PRV on the grid such that it does not overlap with rectangle PRTU.

[1]





13. The figure shows 6 identical squares inside a rectangle. The arrangement results in a gap of 0.2 m at the top and a gap of 0.1 m at the side. The area of the unshaded region is  $3000 \text{ cm}^2$ .



What is the area of the rectangle?

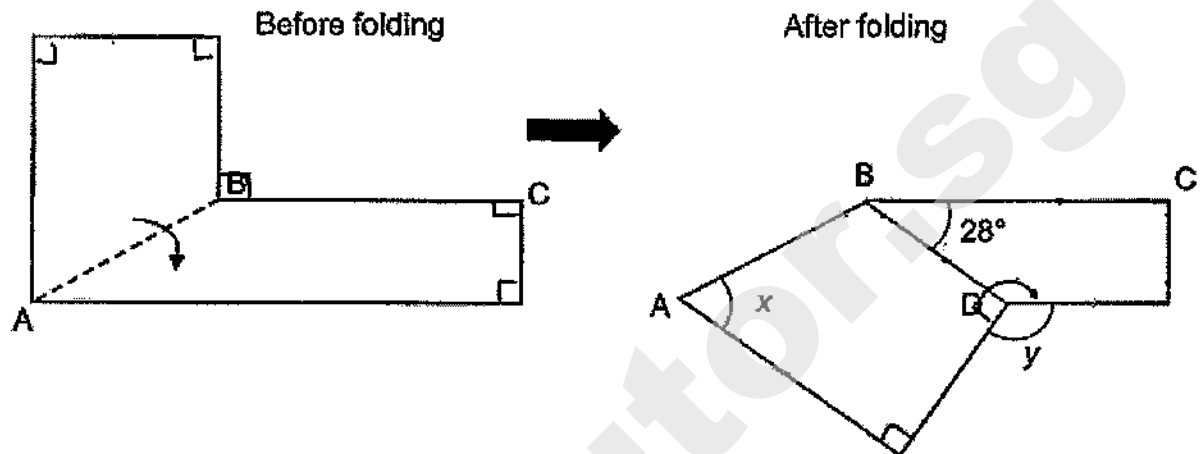
Ans: \_\_\_\_\_ [4]



14. A L-shaped paper is made up of perpendicular lines. It is folded along line AB as shown.  $\angle CBD = 28^\circ$ .

(a) Find  $\angle x$ .

(b) Find  $\angle y$ .



Ans: (a) \_\_\_\_\_ [2]

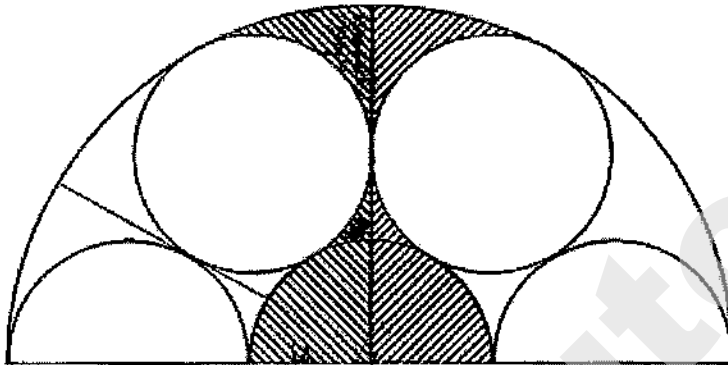
(b) \_\_\_\_\_ [2]



15. The figure is made up of a big semicircle of radius 30 cm. 2 circles and 3 semicircles of equal radius are drawn in the big semicircle.

(a) What is the radius of the circle?

(b) What is the area of the shaded parts? Take  $\pi = 3.14$   
Round your answer correct to 1 decimal place.



Ans: (a) \_\_\_\_\_ [1]

(b) \_\_\_\_\_ [3]



16. Mdm Nurul had some red and green apples in her minimart. The ratio of the number of red apples to the number of green apples was 13 : 7. After selling 60% of the red apples and 55 green apples, the ratio of the number of red apples to the number of green apples was 13 : 12.

(a) How many apples were there altogether at first?

(b) After that, she bought more red apples. The number of red apples she bought was  $\frac{3}{10}$  of the number of red apples left before that. How many red apples did she have in the end?

Ans: (a) \_\_\_\_\_ [3]

(b) \_\_\_\_\_ [2]



17. Peter, Roger and Mary each had a sum of money. They decided to split their dinner bill equally.

If Roger were to pay for the bill first, the sum of his remaining money would be  $\frac{4}{9}$  of Mary's money.

If Mary were to pay for the bill first, the sum of her remaining money would be  $\frac{11}{15}$  of Roger's money.

If Peter were to pay for the bill first, he would have used up all his money.

- (a) Given that Mary had \$126 more than Roger, how much was each person's share of the bill?
- (b) Express Peter's sum of money as a fraction of their total sum of money

Ans: (a) \_\_\_\_\_ [4]

(b) \_\_\_\_\_ [1]

**End of Paper**  
**Please check your work carefully ☺**



SCHOOL : RAFFLES GRILS' PRIMARY SCHOOL  
 LEVEL : PRIMARY 6  
 SUBJECT : MATH  
 TERM : 2020 PRELIM

**PAPER 1 BOOKLET A**


Q 1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
3	3	2	2	3	1	1	2	4	4

Q 11	Q12	Q13	Q14	Q15
1	2	3	3	2

**PAPER 1 BOOKLET B**

Q16)	$50 - 36 + 4 = 18$
Q17)	02 05
Q18)	$8\frac{2}{3}$
Q19)	$11 \times 10 = 110$ $10 \times 0.01 = 0.1$ $110 + 0.1 + 0.1 = 110.2$
Q20)	$1.2\text{m} \times 100 = 120\text{cm}$ $(180 + 120) \div 2 = 150$ $150\text{cm} = 1.5\text{m}$
Q21)	$M \rightarrow \frac{7}{8} \left( \frac{21}{24} \right)$ $R \rightarrow \frac{7}{8} - \frac{1}{6} = \frac{21}{24} - \frac{4}{24} = \frac{17}{24}$ $\text{Total} \rightarrow \frac{21}{24} + \frac{17}{24} = \frac{38}{24} = 1\frac{14}{24} = 1\frac{7}{12} \ell$
Q22)	$40 \div 6 = (6) \text{ R}4$ $50 \div 6 = (8) \text{ R}2$ $60 \div 6 = (10)$ $6 \times 8 \times 10 = 480$

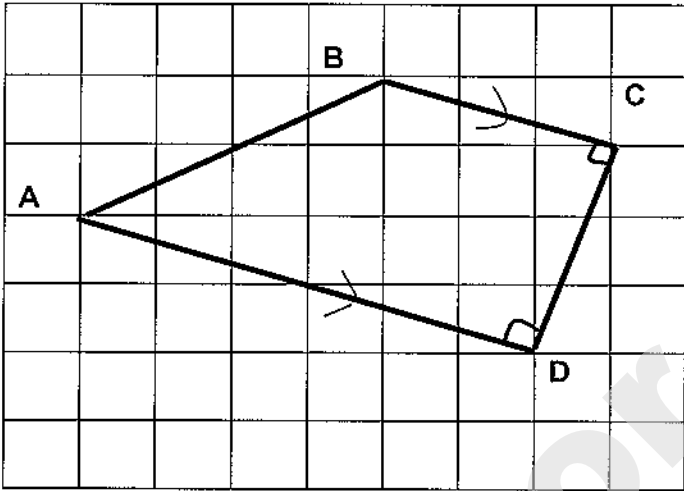


Q23)	$24u \div 8 = 3u$ $(3u - 4)\text{cookies}$
Q24)	$545 - 265 = 280$ $8u \rightarrow 280$ $u \rightarrow 280 \div 8 = 35$
Q25)	$(90 - 22) \div 2 = 34$ $180 - 90 - 34 = 56^\circ$
Q26)	$0.3 \times 100 = 30$ $2 \times 100 = 200$ $200 \div 3 = (6) \text{ R}20$ $20 \div 6 = (3) \text{ R}2$ $3 + 1 = 4$
Q27)	$4 \times 8 = 32\text{cm}$
Q28)	$1^{\text{st}} + 2^{\text{nd}} \text{ hr} \rightarrow \$9 \times 2 = \$18$ $\$42 - \$18 = \$24$ $\$24 \div \$8 = 3$ $3 \times 30 \text{ min} = 90 \text{ min}$ $= 1\text{h } 30 \text{ min}$ $1\text{h } 30\text{min} + 1\text{h} + 1\text{h} = 3\text{h } 30\text{min} = 3.5\text{h}$
Q29)	Left $\rightarrow \frac{5}{6} \times \frac{3}{4} = \frac{5}{8}$ 1 mask $\rightarrow \frac{5}{8} \div 5 = \frac{5}{8} \times \frac{1}{5} = \frac{1}{8} \text{ m}^2$
Q30)	Mar = 1u 

## PAPER 2

Q1)	$538 - 110 = 428$ $306 + 25 = 331$ Before $\rightarrow 538 + 306 = 844$ After $\rightarrow 428 + 331 = 759$ $844 - 759 = 85$ $\frac{85}{844} \times 100\% = 10.1\%$
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Q2)	$135 - 21 = 114$ $114 - 99 = 15$
Q3)	
Q4)	$15 - 3 = 12$ $12u \rightarrow 12$ $8 - 3 = 5$ $5u \rightarrow 12 \div 12 \times 5 = 5 \text{ years}$
Q5)	a)True    b)True    c)Not
Q6)	a) $(140 + 160) \div 2 = 150$ $150 + 20 = 170 \text{ cm}$ b) $(160 + 145 + 150 + 170 + 140 + 165) \div 6 = 155$ Megan , Peggy and Reanne
Q7)	$\frac{1}{3} \text{ full} \rightarrow (4 \times 16 \times 25) \div 3 = 6000$ $\frac{7}{8} \text{ full} \rightarrow (45 \times 16 \times 25) \div 8 \times 7 = 15750$ $15750 - 6000 = 9750$ $9750 \div 650 = 15$
Q8)	Mr $\rightarrow 1800 \div 15 = 120$  <u>9hrs</u> Mr $\rightarrow 120 \times 9 = 1080$ $1800 - 1080 = 720$ a) $720 \div 4 = 180$ b) $1800 \div 180 = 10$ $15 - 10 = 5h$







Q14)	<p>a) <math>360 - 90 = 152</math>  <math>(270 - 28) \div 2 = 121</math>  <math>180 - 121 = 59^\circ</math></p> <p>b) <math>180 - 28 - 152</math>  <math>360 - 152 - 90 = 118^\circ</math></p>
Q15)	<p>a) <math>3u \rightarrow 30\text{cm}</math>  <math>2u \rightarrow 30 \div 3 \times 2 = 20\text{cm}</math>  <math>20 \div 2 = 10</math></p> <p>b) <u>Area of..</u>  Big quad <math>\rightarrow \frac{1}{4} \times 3.14 \times 30 \times 30 = 706.5</math>  <math>1\frac{3}{4}</math> small circle <math>\rightarrow 549.5</math>  <math>3 \text{ [shaded]} \rightarrow 706.5 - 549.5 = 157</math>  <math>1 \text{ [shaded]} \rightarrow 157 \div 3 = 52\frac{1}{3}</math>  Small quad <math>\rightarrow \frac{1}{4} \times 3.14 \times 10 \times 10 = 78.5</math>  Total shaded <math>\rightarrow (52\frac{1}{3} + 78.5) \times 2 \approx 261.7</math></p>
Q16)	<p><math>5.5u \rightarrow 55</math>  <math>32.5 + 17.5 = 50</math></p> <p>a) <math>50u \rightarrow 55 \div 5.5 \times 50 = 500</math></p> <p>b) <math>13u \rightarrow 55 \div 5.5 \times 13 = 130</math>  <math>130 \div 10 \times 13 = 169</math></p>
Q17)	<p>a) <math>4u + x = 15p</math>  <math>9u - x = 11p</math>  <math>36u + 9x = 135p</math>  <math>36u - 4x = 44p</math>  <math>13x \rightarrow 91p</math>  <math>X \rightarrow 7p</math>  <math>15p - 7p = 8p</math>  <math>4u = 8p</math>  <math>9u = 18p</math>  <math>18p - 15p = 3p</math>  <math>3p \rightarrow 126</math>  <math>7p \rightarrow 126 \div 3 \times 7 = 294</math>  <math>294 \div 3 = 98</math></p> <p>b) <math>\frac{7}{40}</math></p>





# RED SWASTIKA SCHOOL

## 2020 PRELIMINARY ASSESSMENT

### MATHEMATICS PAPER 1

Name : \_\_\_\_\_ ( )

Class : Primary 6 / \_\_\_\_\_

Date : 20 Aug 2020

### BOOKLET A

15 Questions

20 Marks

Duration of Paper 1 (Booklets A & B): 1 hour

Note:

1. Do not open this Booklet until you are told to do so.
2. Read carefully the instructions given at the beginning of each part of the Booklet.
3. Do not waste time. If a question is difficult for you, go on to the next one.
4. Check your answers thoroughly and make sure you attempt every question.
5. In this booklet, you should have the following:
  - (a) Page 1 to Page 5
  - (b) Questions 1 to 15
6. You are not allowed to use a calculator.



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 Which of the following is eight hundred and two thousand and seven in figures ?

(1) 80 207  
(2) 802 007  
(3) 820 007  
(4) 8 002 007

- 2 Express 5004g as kg and g.

(1) 5 kg 4 g  
(2) 5 kg 40 g  
(3) 50 kg 4 g  
(4) 50 kg 40 g

- 3 Which of the following is the smallest ?

(1) 8.27  
(2) 8.72  
(3) 8.207  
(4) 8.702

- 4 Which of the following is equivalent to  $\frac{15}{20}$  ?

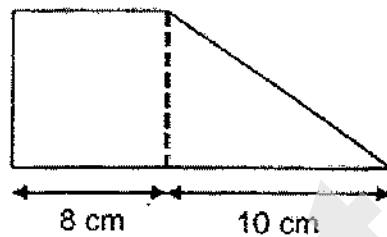
(1)  $\frac{9}{16}$   
(2)  $\frac{10}{15}$   
(3)  $\frac{9}{15}$   
(4)  $\frac{9}{12}$



- 5 The radius of a circle is 10 cm . Find the circumference of the circle.  
Take  $\pi = 3.14$

- (1) 31.4 cm
- (2) 62.8 cm
- (3) 78.5 cm
- (4) 314 cm

- 6 The figure is made up of a square and a right-angled triangle. Find the area of the figure.



- (1) 72 cm<sup>2</sup>
- (2) 104 cm<sup>2</sup>
- (3) 114 cm<sup>2</sup>
- (4) 144 cm<sup>2</sup>

- 7 Which letter below is **not** symmetrical?

**T O W N**

- (1) T
- (2) O
- (3) W
- (4) N

- 8 What is the value of  $2m + \frac{m-1}{10}$  when  $m = 3$ ?

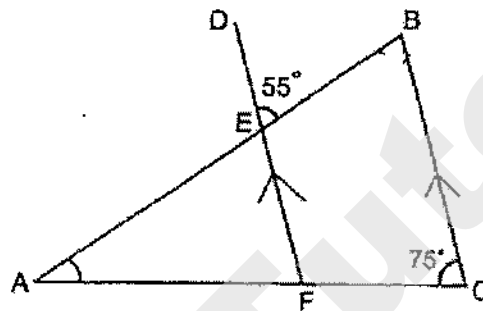
- (1) 5.6
- (2) 5.8
- (3) 6.2
- (4) 6.4



- 9 The average of two numbers is 38. When a third number is added, the average of the three numbers is 40. Find the third number.

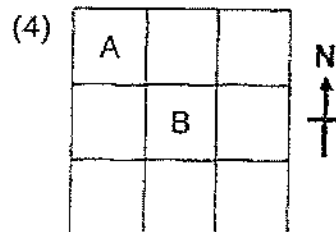
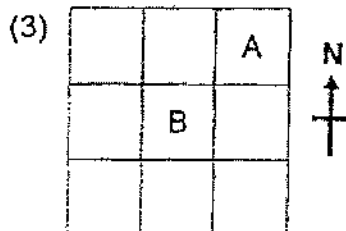
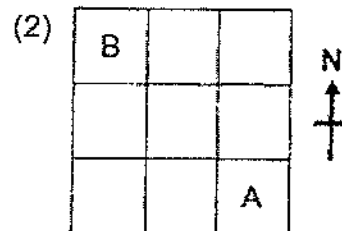
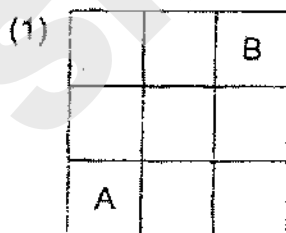
- (1) 39
- (2) 42
- (3) 44
- (4) 82

- 10 In the figure below, ABC is a triangle.  $\angle DEB = 55^\circ$  and  $\angle FCB = 75^\circ$ . BC is parallel to DF. Find  $\angle EAF$ .



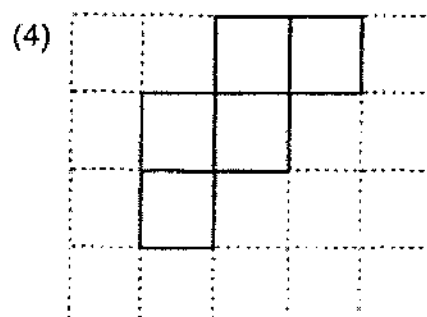
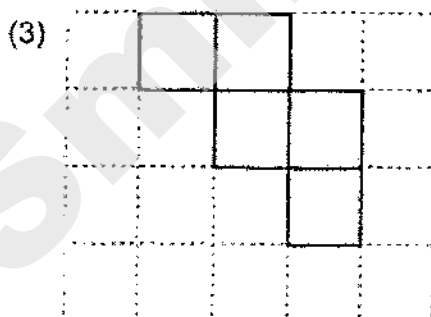
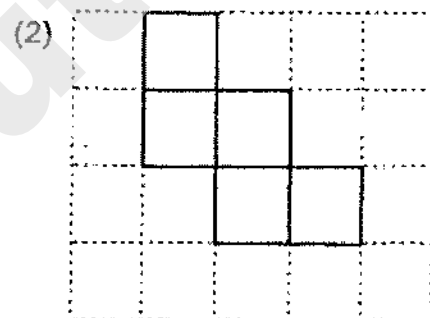
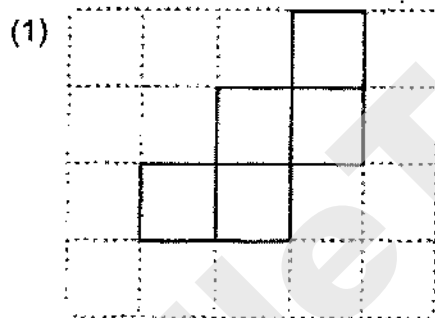
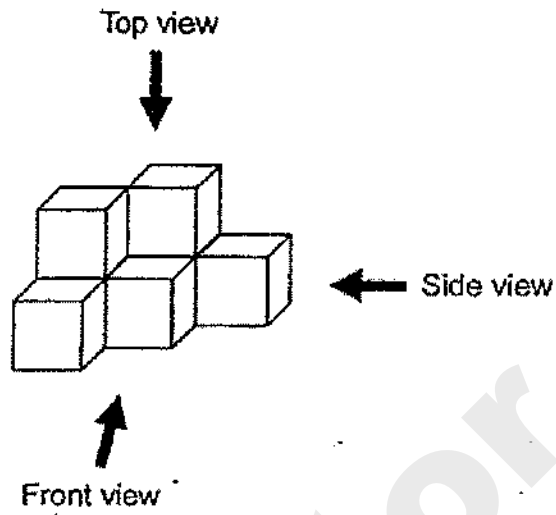
- (1)  $20^\circ$
- (2)  $50^\circ$
- (3)  $55^\circ$
- (4)  $75^\circ$

- 11 Points A and B are drawn on square grid below. Which of the following shows A is south-west of B correctly?





- 12 The solid below is made of 7 cubes.  
Which of the following shows the top view of the solid correctly ?





- 13 At a supermarket, 5 apples are sold at \$3.55. What is the price of 30 apples ?

- (1) \$17.75
- (2) \$21.30
- (3) \$106.50
- (4) \$124.25

- 14 A group of students was asked to vote for their favourite fruit from a list of 4 fruits. The table shows the number of students who voted for each fruit. How many type(s) of fruit(s) was/were voted as a favourite by more than 25% of the students?

Types of fruit	Apple	Banana	Orange	Pear
Number of students	30	18	10	22

- (1) 1
  - (2) 2
  - (3) 3
  - (4) 4
- 15 A number is the sum of all the factors of 14. Which of the following can be added to the number to change it to a multiple of 9?

- (1) 5
- (2) 8
- (3) 3
- (4) 4





# RED SWASTIKA SCHOOL

## 2020 PRELIMINARY ASSESSMENT

### MATHEMATICS PAPER 1

Name : \_\_\_\_\_ ( )

Class : Primary 6 / \_\_\_\_\_

Date : 20 Aug 2020

### BOOKLET B

15 Questions  
25 Marks

In this booklet, you should have the following:

- (a) Page 6 to Page 12
- (b) Questions 16 to 30

### MARKS

	OBTAINED	POSSIBLE
BOOKLET A		20
BOOKLET B		25
TOTAL		45

Parent's Signature : \_\_\_\_\_



Questions 16 to 20 carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (5 marks)

- 16 Find the value of  $58 \times 60$ .

Ans: \_\_\_\_\_

- 17 Use a protractor to measure the obtuse angle in the triangle below and write the answer in the answer space provided.

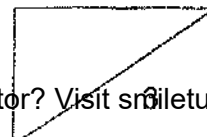


Ans: \_\_\_\_\_

- 18 The table below shows the number of dollar notes that Kim has saved. Find the total amount of money Kim has saved.

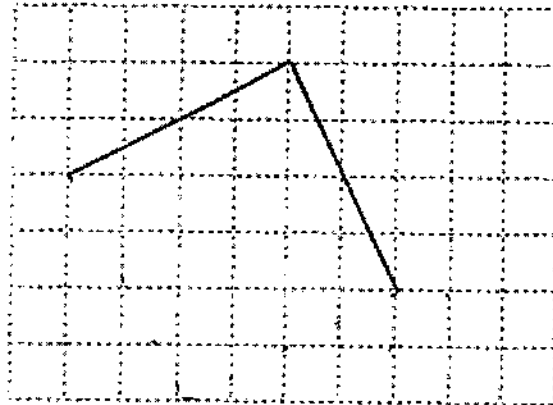
Type of dollar notes	\$2	\$5	\$10
Number of dollar notes	4	5	1

Ans: \$ \_\_\_\_\_



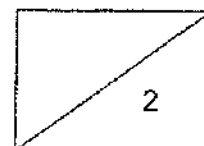


- 19 On the grid below, draw two straight lines to complete a symmetrical figure.



- 20 A machine takes 5 minutes to make 3 boxes. With two such machines working at the same given rate, how many minutes would be needed to make 90 such boxes ?

Ans: \_\_\_\_\_ min





Questions 21 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.

(20 marks)

---

21 Find the value of

(a)  $8 \times 4 \div 2 - 1$

(b)  $20 - (3 + 4 \times 2)$

Ans: (a) \_\_\_\_\_

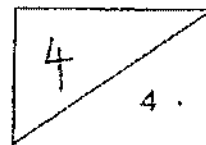
(b) \_\_\_\_\_

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22 Find the value of  $\frac{7}{4} + 2\frac{5}{6}$  as a mixed number in its simplest form.

Ans: \_\_\_\_\_

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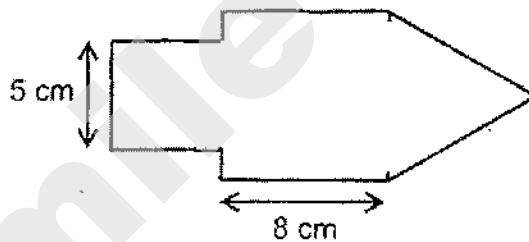


- 23 Water from a tap fills an empty tank at  $600 \text{ ml}$  per minute. At this rate, how much water is in the tank after 25 minutes? Express your answer in litres.

Ans: \_\_\_\_\_  $\ell$

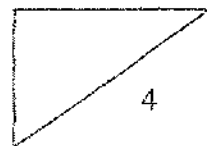
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- 24 The figure is made up of 2 squares and 1 equilateral triangle. Find the perimeter of the figure.



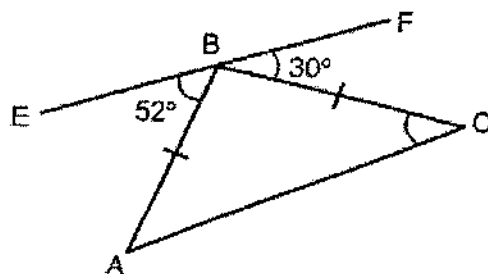
Ans: \_\_\_\_\_  $\text{cm}$

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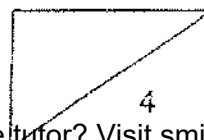
- 25 In the figure below,  $ABC$  is an isosceles triangle,  $EBF$  is a straight line,  $\angle ABE = 52^\circ$  and  $\angle CBF = 30^\circ$ . Find  $\angle BCA$ .



Ans: \_\_\_\_\_

- 26 The average of 2 numbers is 39. The average of another 3 numbers is 44. Find the total of these 5 numbers.

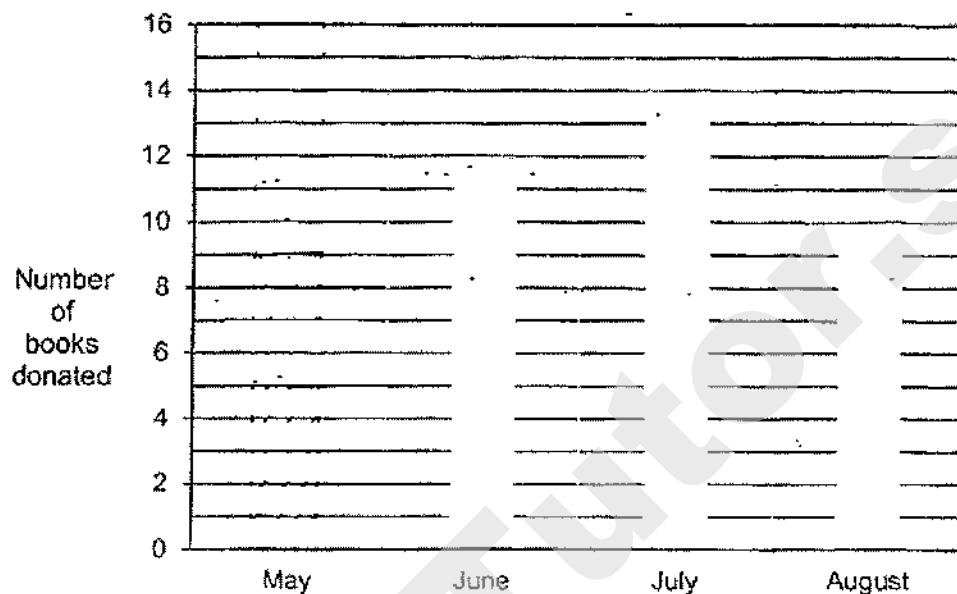
Ans: \_\_\_\_\_





Use the information below to answer Questions 27 and 28.

The bar graph below shows the number of books donated by a class from May to August. The number of books donated in May was  $\frac{1}{5}$  of the total number of books donated during the 4 months.

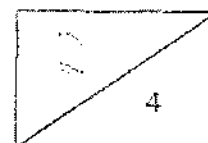


27 Draw the bar for May in the graph.

---

28 What fraction of the total number of books was donated in June?

Ans: \_\_\_\_\_

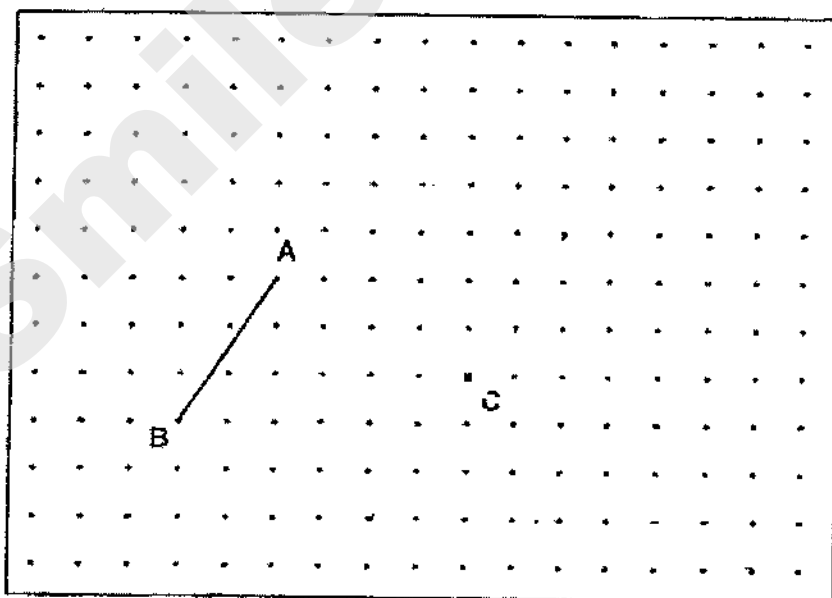




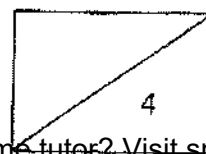
- 29 In a sale, each cup is sold at  $\$3a$  and each plate is sold at  $\$(a + 4)$ . Find the total price of 3 cups and 2 plates in terms of  $a$ . Express your answer in the simplest form.

Ans: \$ \_\_\_\_\_

- 30 Using the grid and the given line AB, draw another straight line with the following characteristics:
- parallel to AB
  - twice the length of AB
  - passes through C which is marked by X on the grid as shown



END OF PAPER







# RED SWASTIKA SCHOOL

## 2020 PRELIMINARY ASSESSMENT

### MATHEMATICS

### PAPER 2

Name : \_\_\_\_\_ ( )

Class : Primary 6 / \_\_\_\_\_

Date : 20 Aug 2020

17 Questions

55 Marks

Duration of Paper 2: 1 hour 30 minutes

**Note:**

1. Do not open this Booklet until you are told to do so.
2. Read carefully the instructions given at the beginning of each part of the Booklet.
3. Do not waste time. If a question is difficult for you, go on to the next one.
4. Check your answers thoroughly and make sure you attempt every question.
5. In this paper, you should have the following:
  - (a) Page 1 to Page 13
  - (b) Questions 1 to 17
6. You are allowed to use a calculator.

**MARKS**

	OBTAINED	POSSIBLE
PAPER 1		45
PAPER 2		55
TOTAL		100



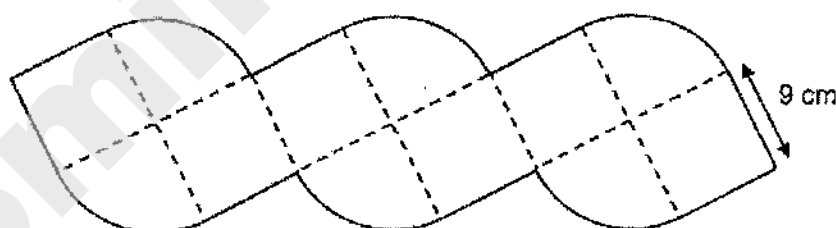
Questions 1 to 5 carry 2 marks each. Show your workings clearly in the space below each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(10 marks)

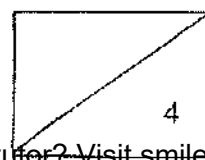
- 1 The total of 2 numbers is 43.2 and their difference is 12.8. Find the smaller number.

Ans: \_\_\_\_\_

- 2 The figure is made up similar quadrants and squares. Find the perimeter of the figure correct to 1 decimal place. Take  $\pi = 3.14$ .



Ans: \_\_\_\_\_ cm



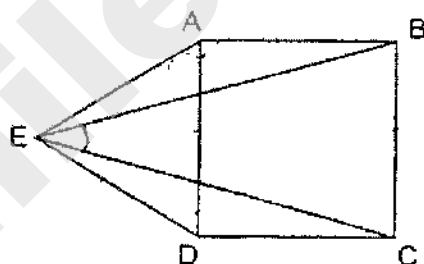


- 3 Study the algebraic expressions that follow a pattern below.  
Find the value of  $w$  if Number 6 is 65.

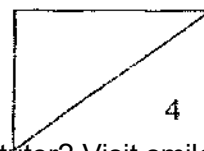
Number 1	Number 2	Number 3	....	Number 6
$13w + 12$	$11w + 10$	$9w + 8$	....	?

Ans: \_\_\_\_\_

- 4 In the figure below, ABCD is a square and ADE is an equilateral triangle.  
Find  $\angle BEC$ .



Ans: \_\_\_\_\_





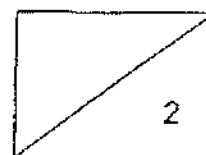
- 5 Devi had to fill as many jugs as possible with 10 ℓ of water. The capacity of each jug is  $\frac{9}{16}$  ℓ.

- (a) What was the most number of jugs that could be completely filled with water?
- (b) How much of the water was left over? Give your answer in litres.

Ans: (a) \_\_\_\_\_

(b) \_\_\_\_\_ ℓ

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For Questions 6 to 17, show your workings clearly in the space below 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.

(45 marks)

- 6 At a shop, Alice paid \$15.60 for a chocolate cake and 5 curry puffs. Ben paid \$26.45 for a chocolate cake and 12 curry puffs. Find the cost of 1 chocolate cake.

Ans: \_\_\_\_\_ [3]

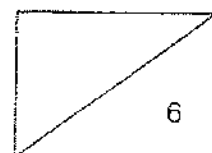
- 7 Use all the digits 6, 2, 3 to form the number for each box below.

(a)  minutes are smaller than 4 hours.

(b)  minutes are closest to 5 hours.

Ans: (a) \_\_\_\_\_ [1]

(b) \_\_\_\_\_ [2]





- 8 A baker had a total of 425 tarts and cupcakes. After selling an equal number of both types, he had  $\frac{1}{3}$  of the tarts and  $\frac{1}{4}$  of the cupcakes left. What was the total number of tarts and cupcakes left?

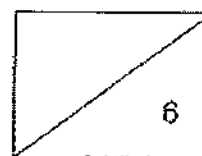
Ans: \_\_\_\_\_ [3]

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- 9 Tim had some books for sale. He sold some books on Saturday. On Sunday, he sold  $\frac{1}{4}$  of the remainder. After the sale, the ratio of number of books sold to the number of books left was 8 : 5. What was ratio of the number of books sold on Saturday to the number of books sold on Sunday?

Ans: \_\_\_\_\_ [3]

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**Membership Promotion Coupon**



*Buy first laptop  
at 20% discount*

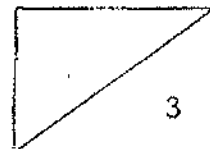


*Buy second similar laptop  
at 40% discount*

*For Non-members, 15% discount for each laptop.*

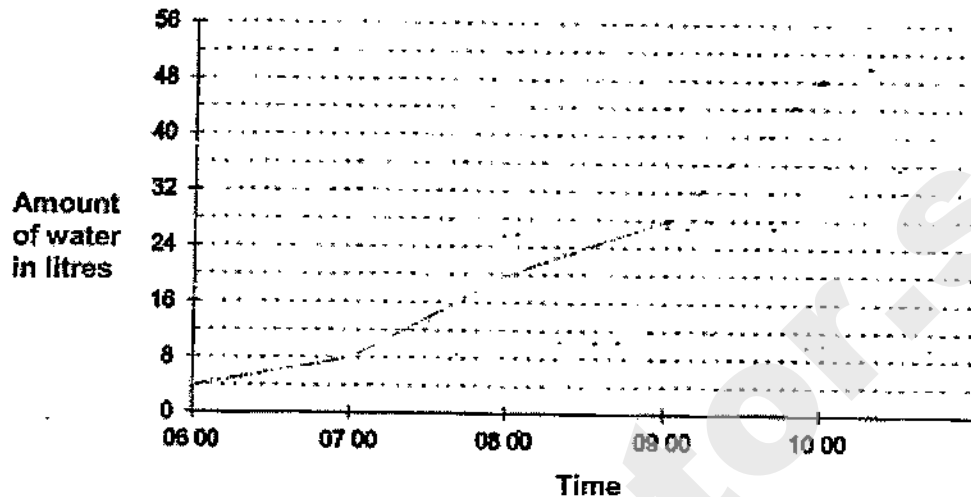
Using the membership promotion coupon, Sue paid \$2940 for 2 similar laptops. How much would she have paid for 1 such laptop if she was not a member?

Ans: \_\_\_\_\_ [3]





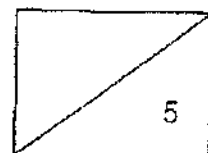
- 11 A tank was partially filled with water at first. A tap was turned on from 06 00, and the tank was completely filled to 48 litres at 10 00. A line graph, showing the volume of water in the tank at regular intervals of time was drawn up as shown below. However, the line graph only shows the readings from 06 00 to 09 00.



- (a) Complete the line graph from the 09 00 to 10 00 with a straight line. [1]
- (b) What fraction of the tank was filled with water at first? Express your answer as a fraction in its simplest form.
- (c) What was the percentage increase in the amount of water in the tank from 08 00 to 09 00?

Ans: (b) \_\_\_\_\_ [2]

(c) \_\_\_\_\_ [2]

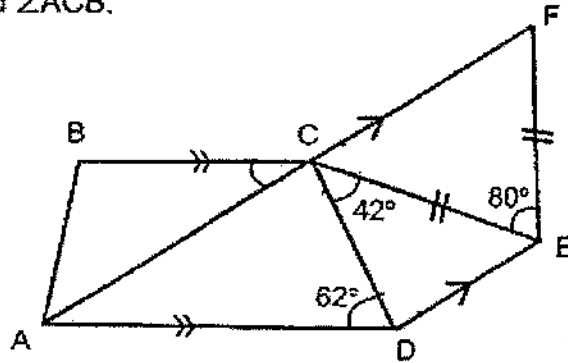




- 12 In the figure below, ABCD and AFED are trapeziums,  $CE = EF$ ,  $\angle ADC = 62^\circ$ ,  $\angle DCE = 42^\circ$  and  $\angle CEF = 80^\circ$ .

(a) Find  $\angle ACD$ .

(b) Find  $\angle ACB$ .



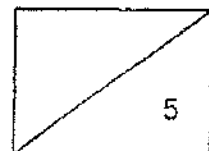
Ans: (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [2]

- (c) Peter claims that CD is perpendicular to DE.  
Do you agree with Peter? Tick Yes or No.  
Name the angle that can be used to check for the answer. [1]

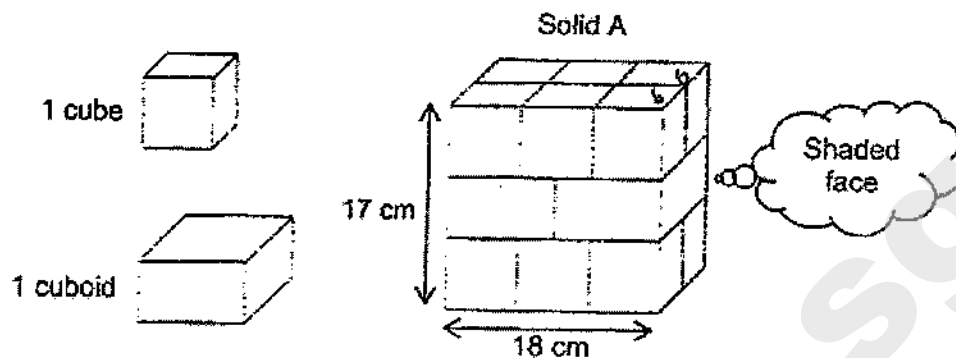
☐ Yes. ☐ No.

Check  $\angle$  \_\_\_\_\_





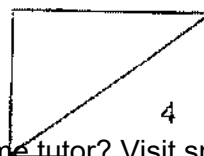
- 13 Solid A is glued together using 2 similar cuboids and 12 identical cubes as shown.



- (a) Find the total area of the shaded face as shown.
- (b) Find the volume of 1 cuboid.

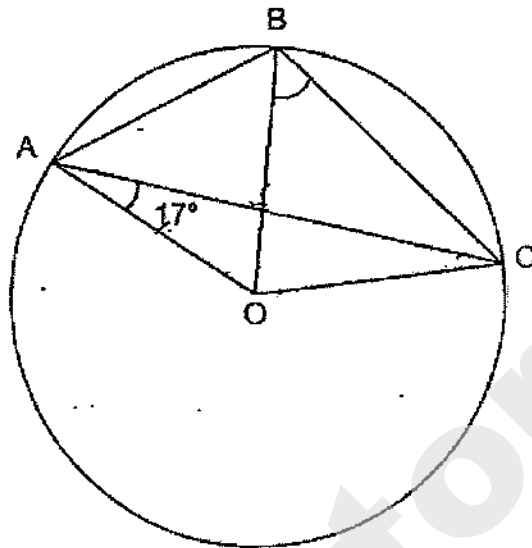
Ans: (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [2]





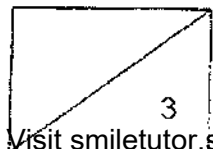
- 14 In the figure below,  $O$  is the centre of the circle.  $OAC$ ,  $OAB$  and  $OBC$  are triangles,  $AB = AO$  and  $\angle OAC = 17^\circ$ .



- (a) Name an equilateral triangle in the given figure.  
(b) Find  $\angle OBC$ .

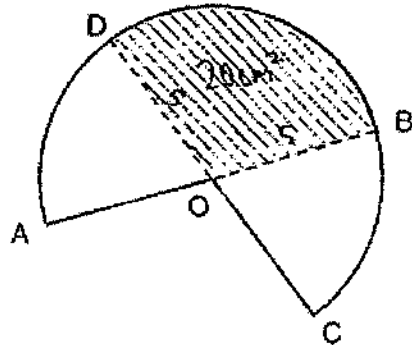
Ans: (a) \_\_\_\_\_ [1]

(b) \_\_\_\_\_ [2]





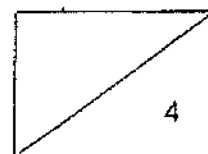
- 15 The figure is formed by 2 identical semicircles overlapping each other. The radius of each semicircle is 5 cm. O is the centre of both semicircles. AOB and COD are the diameters. The area of the shaded part OBD is  $20 \text{ cm}^2$  and the perimeter of the shaded part OBD is 18 cm.



- (a) Using the calculator value of  $\pi$ , find the area of the figure. Correct your answer to 2 decimal places.
- (b) Using  $\pi = \frac{22}{7}$ , find the perimeter of the figure. Give your answer as a mixed number in the simplest form.

Ans: (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [2]



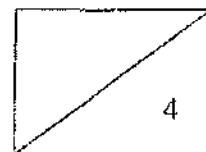


- 16 At first, Ben had some red, blue and green marbles. During a game, he removed 54 red marbles, gave away 40% of the blue marbles and increased the green marbles by 25%. After the game, the ratio of the number of red marbles to the number of blue marbles to the number of green marbles was 3 : 1 : 5. The total number of marbles he had before and after the game was the same.

- (a) What fraction of the marbles were red at first?
- (b) How many green marbles had he increased during the game?

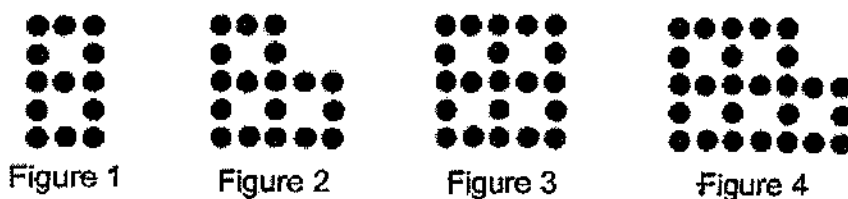
Ans: (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [2]





- 17 Farid used circles to form figures that follow a pattern. The first 4 figures are shown below.



- (a) The table below shows the number of circles used for each figure. Complete the table for Figure 5 and Figure 6.

Figure Number	Number of circles used
1	13
2	18
3	21
4	26
5	
6	

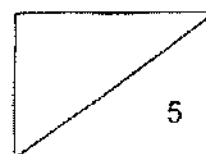
[1]

- (b) What is the difference in the number of circles Farid would use for Figure 10 and Figure 12?
- (c) How many circles would he use for Figure 41?

Ans: (b) \_\_\_\_\_ [2]

(c) \_\_\_\_\_ [2]

END OF PAPER





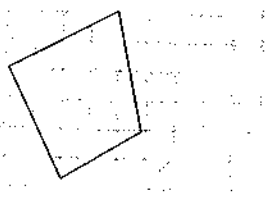
**SCHOOL :** RED SWASTIKA PRIMARY SCHOOL  
**LEVEL :** PRIMARY 6  
**SUBJECT :** MATH  
**TERM :** 2020 PRELIM

**PAPER 1 BOOKLET A**

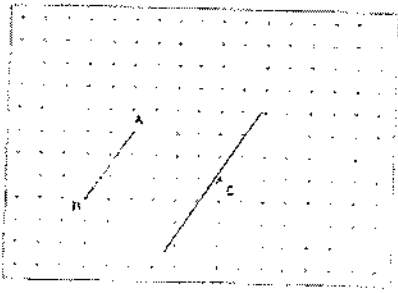
Q 1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
2	1	3	4	2	2	4	3	3	2

Q 11	Q12	Q13	Q14	Q15
1	4	2	2	3

**PAPER 1 BOOKLET B**

Q16)	$58 \times 6 \times 10 = 580 \times 6$ $= 3480$
Q17)	$131^\circ$
Q18)	Value \$2 $\rightarrow 2 \times 4 = \$8$ Value \$4 $\rightarrow 5 \times 5 = \$25$ $10 + 25 + 8 = 35 + 8 = \$43$
Q19)	
Q20)	$5\text{min} \rightarrow 3 \times 2 = 6$ Sets of 5min $\rightarrow 90 \div 6 = 15$ Total $\rightarrow 15 \times 5 = 75 \text{ min}$



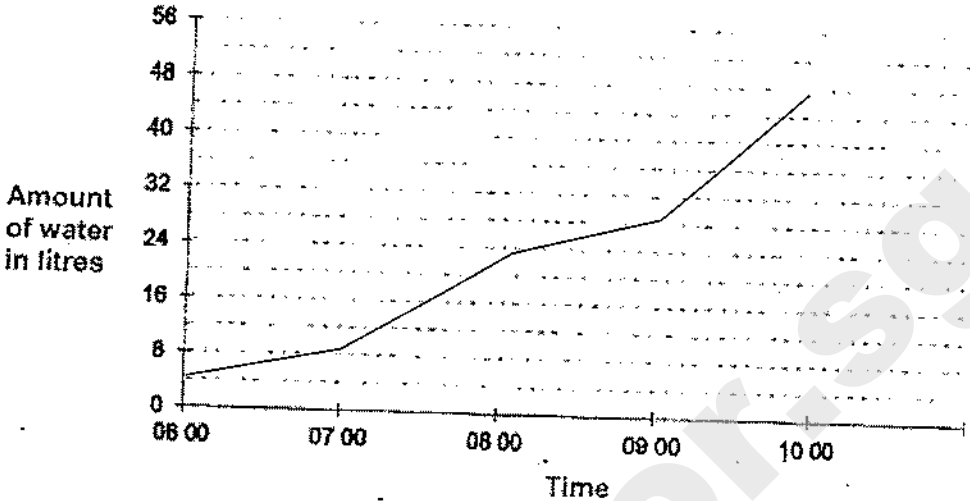
Q21)	$a) 8 \times 4 \div 2 - 1 = 16 - 1 = 15$ $b) 20 - (3 + 4 \times 2) = 20 - 11 = 9$
Q22)	$4\frac{7}{12}$
Q23)	$600 \times 25 = 15000$ $15000\text{ml} = 15\ell$
Q24)	$\text{Perimeter} \rightarrow 8 + 8 + 8 + 8 + 5 + 5 + 5 + 3$ $= (5 \times 8) + 5 + 5$ $= 40 + 10 = 50\text{cm}$
Q25)	$180 - 52 - 30 = 98$ $180 - 98 = 82$ $82 \div 2 = 41^\circ$
Q26)	$39 \times 2 = 78$ $44 \times 3 = 132$ $\text{Total} \rightarrow 132 + 78 = 210$
Q27)	$12 + 14 + 10 = 36$ $36 \div 4 = 9$
Q28)	$\frac{4}{5} \rightarrow 12 + 14 + 10 = 36$ $\frac{5}{5} \rightarrow \frac{36}{4} \times 5 = 45$ $\frac{12}{45} = \frac{4}{15}$
Q29)	$3 \text{ cups} \rightarrow 3a \times 3 = 9a$ $2 \text{ plates} \rightarrow (a+4) \times 2 = 2a+8$ $\text{Total} \rightarrow 9a + 2a + 8 = \$ (11a + 8)$
Q30)	



**PAPER 2**

Q1)	Small number $\times 2 \rightarrow 43.2 - 12.8 = 30.4$ Small number $\rightarrow 30.4 \div 2 = 15.2$
Q2)	156.8 cm
Q3)	$3w + 2 = 65$ $3w \rightarrow 65 - 2 = 63$ $1w \rightarrow 63 \div 3 = 21$
Q4)	AEB $\rightarrow (180 - 90 - 60) \div 2 = 15$ BEC $\rightarrow 60 - 15 - 15 = 30^\circ$
Q5)	a) 17 b) $\frac{7}{16}$
Q6)	Curry puffs $\rightarrow 26.45 - 15.60 = 10.85$ $\rightarrow 10.85 \div 7 = 1.55$ 5 curry puff $\rightarrow 1.55 \times 5 = 7.75$ Choc $\rightarrow 15.6 - 7.75 = \$7.85$
Q7)	a) 236 b) 326
Q8)	125
Q9)	Sold (both days) $\rightarrow (\frac{3}{4} R \div 5) \times 8 = \frac{24}{20} R$ Sold sat $\rightarrow \frac{24}{20} R - \frac{1}{4} R = \frac{19}{20} R$ $\frac{1}{4} R = \frac{5}{20} R$ ANS: 19 : 5
Q10)	100% $\rightarrow 4200 \div 2 = 2100$ $100 - 15 = 85$ 85 % $\rightarrow \frac{2100}{100} \times 85 = \$1785$



Q11)	 <p>Amount of water in litres</p> <p>Time</p> <p>b) <math>\frac{4}{48} = \frac{1}{12}</math>  c) Diff <math>\rightarrow 28 - 20 = 8</math>  % <math>\rightarrow \frac{8}{20} \times 100\% = 40\%</math></p>
Q12)	<p>a) FCE <math>\rightarrow (180 - 80) \div 2 = 50</math>  ACD <math>\rightarrow 180 - 50 - 42 = 88^\circ</math>  b) CAD <math>\rightarrow 180 - 88 - 62 = 30</math>  ACB <math>\rightarrow 30^\circ</math>  c) NO  ACD</p>
Q13)	<p>a) <math>18 \div 3 = 6</math>  width <math>\rightarrow 6 \times 2 = 12</math>  shaded <math>\rightarrow 12 \times 17 = 204 \text{ cm}^2</math>  b) Height cuboid <math>\rightarrow 17 - 6 - 6 = 5</math>  Length cuboid <math>\rightarrow 18 \div 2 = 9</math>  Vol cuboid <math>\rightarrow 9 \times 5 \times 12 = 540 \text{ cm}^3</math></p>
Q14)	<p>a) Triangle OAB  b) AFO <math>\rightarrow 180 - 17 - 60 = 103</math>  BFC <math>\rightarrow 103</math>  AOC <math>\rightarrow 180 - 17 - 17 = 146</math>  FOC <math>\rightarrow 146 - 60 = 86</math>  OBC <math>\rightarrow (180 - 86) \div 2 = 47^\circ</math></p>



Q15)	a) $58.54\text{cm}^2$ b) $BD \rightarrow 18 - 5 - 5 = 8$ $2 \times \frac{1}{2} \times \frac{22}{7} \times 10 = 33\frac{3}{7} \text{ cm}$
Q16)	a) $\frac{10}{27}$ b) 162
Q17)	a) $26 + 3 = 29$ $29 + 5 = 34$ b) $3 + 5 = 8$ c) $41 \div 2 = 20 \text{ R } 0.5$ $(20 \times 5) + (20 \times 3) + 13 = 173$





**Rosyth School**  
**Preliminary Examination 2020**  
**Mathematics**  
**Paper 1**  
**Primary 6**

Name: \_\_\_\_\_

Register No. \_\_\_\_\_

Class: Pr 6 - \_\_\_\_\_

Date: 25 August 2020

Parent's Signature: \_\_\_\_\_

Total Time for Booklets A and B : 1 hour

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**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).



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 in this paper are not drawn to scale unless stated otherwise.*

(20 marks)

1 Round off 80 282 to the nearest tenth.

- (1) 80
- (2) 80.2
- (3) 80.3
- (4) 80.28

2 Express  $6 + 10f - 4 + 2f$  in the simplest form.

- (1)  $12f + 2$
- (2)  $12f + 10$
- (3)  $14f - 4$
- (4)  $18f - 4$

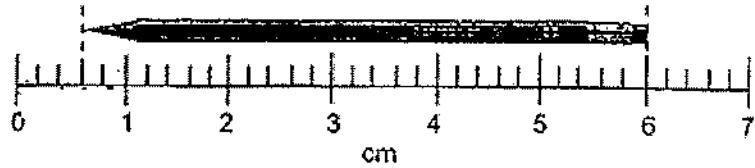
3 The average amount of money saved by Annie and Ben was \$36. Annie saved three times as much as Ben. How much did Ben save?

- (1) \$ 9
- (2) \$18
- (3) \$54
- (4) \$72



4. What is the length of the pencil in the figure below?

- (1) 5.2 cm
- (2) 5.4 cm
- (3) 5.8 cm
- (4) 6.0 cm



5. What is the possible mass of the watermelon in the figure below?

- (1) 6.5 g
- (2) 65 g
- (3) 6.5 kg
- (4) 65 kg

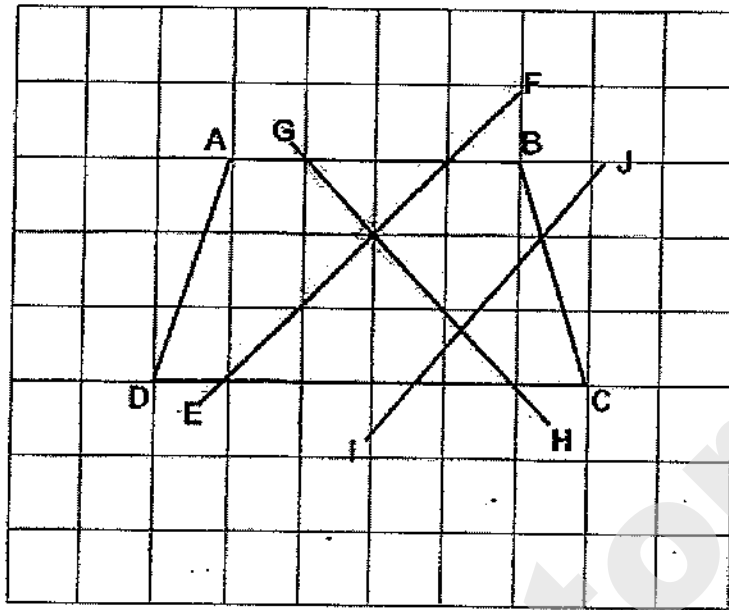


6. Weng is facing East.  
He turns  $225^\circ$  in a clockwise direction.  
He then turns  $45^\circ$  in an anti-clockwise direction.  
Which direction is he facing now?

- (1) North
- (2) South
- (3) East
- (4) West



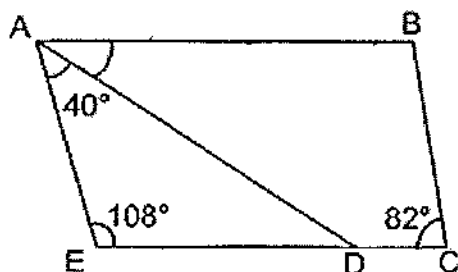
- 7 Which two lines are perpendicular to each other?



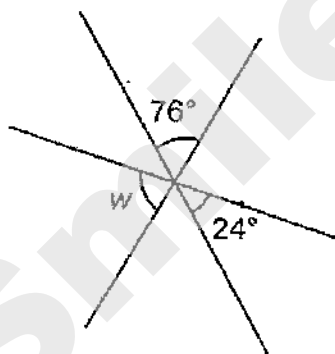
- (1) AB and CD
- (2) GH and IJ
- (3) EF and IJ
- (4) GH and EF



- 8 In the figure below, ABCD is a trapezium. EDC is a straight line. AB is parallel to DC. Find  $\angle DAB$ .




- (1)  $22^\circ$
  - (2)  $32^\circ$
  - (3)  $42^\circ$
  - (4)  $68^\circ$
- 9 The figure below is made up of 3 straight lines. Find  $\angle w$ .



- (1)  $66^\circ$
- (2)  $80^\circ$
- (3)  $100^\circ$
- (4)  $104^\circ$



- 10 The table below shows the rental fees for skates.

Skates for Rent		
First hour	\$10 per pair	
Every additional $\frac{1}{2}$ hour	\$6 per pair	

Cedelle rented a pair of skates from 10 am to 12 noon. How much did she pay?

- (1) \$16
  - (2) \$20
  - (3) \$22
  - (4) \$32
- 11 A number when divided by 10 gives a remainder of 7. Which of the following can be added to the number to change it to a multiple of 5?
- (1) 5
  - (2) 2
  - (3) 3
  - (4) 4
- 12 Mr Lim had \$100. He bought 2 crabs which cost \$30.50 each and some fishes which cost \$23.70. How much money had he left?
- (1) \$15.30
  - (2) \$45.80
  - (3) \$84.70
  - (4) \$184.70

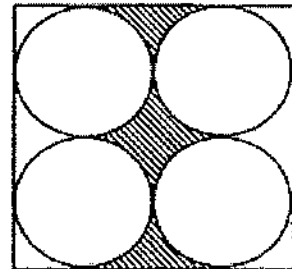


- 13 Mdm Rosie sold only roses on Mother's Day. She sold 200 stalks of them in the morning and  $\frac{2}{5}$  of the remainder in the afternoon. After that, she had  $\frac{1}{2}$  of the roses left. How many stalks of roses did she sell in the afternoon ?

- (1) 400
- (2) 600
- (3) 1000
- (4) 1200

- 14 The figure below is made up of 4 identical circles inside a square. The length of the square is 28 cm. Find the perimeter of the shaded part. (Take  $\pi = \frac{22}{7}$ )

- (1) 88 cm
- (2) 102 cm
- (3) 116 cm
- (4) 144 cm





- 15 A survey was conducted to find out the favourite snack of a group of 50 children. They could only pick one type of snack and each type was picked by at least one child.

The table below showed the results of the survey. Given that the most popular snack is Mamee Monster and the least popular snack was prawn crackers, what was the greatest number of children who picked Potato chips ?

Favourite snacks

Mamee Monster	Potato Chips	Prawn Crackers	Chocolates
24	?	3	

- (1) 19
- (2) 23
- (3) 27
- (4) 4





**Rosyth School**  
**Preliminary Examination 2020**  
**Mathematics**  
**Paper 1**  
**Primary 6**

Name: \_\_\_\_\_

Register No. \_\_\_\_\_

Class: Pr 6 - \_\_\_\_\_

Group No.: \_\_\_\_\_

Date: 25 August 2020

Parent's Signature: \_\_\_\_\_

Total Time for Booklets A and B : 1 hour

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**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. Write your answers in the booklet.
5. Answer all questions.

Section	Maximum Mark	Marks Obtained
Paper 1 (Booklet B)	25	

\* This booklet consists of 9 pages (including this cover page).



Questions 16 to 20 carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

Do not write in this space

**All diagrams in this paper are not drawn to scale unless stated otherwise.**

(5 marks)

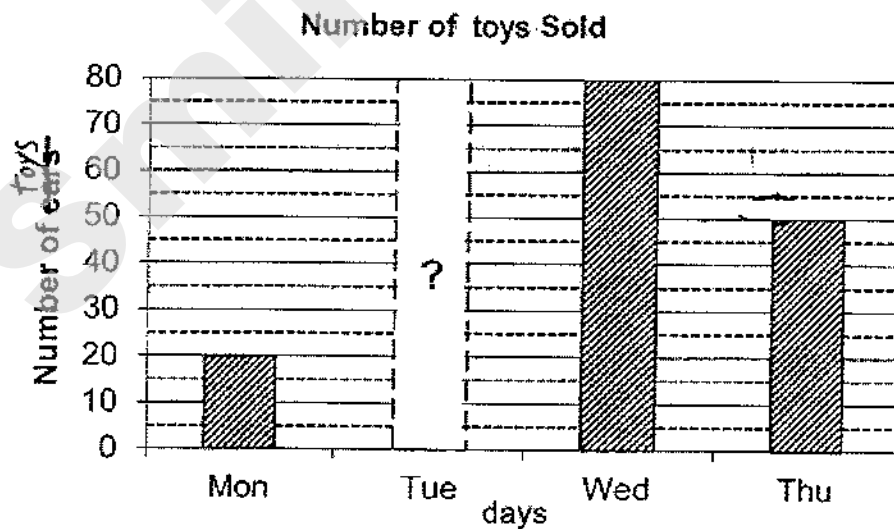
- 16 List all the common factors of 20 and 35.

Ans : \_\_\_\_\_

- 17 Express 3.2 as a percentage.

Ans : \_\_\_\_\_ %

- 18 At a carnival, 215 toys were sold in 4 days.  
How many toys were sold on Tuesday?



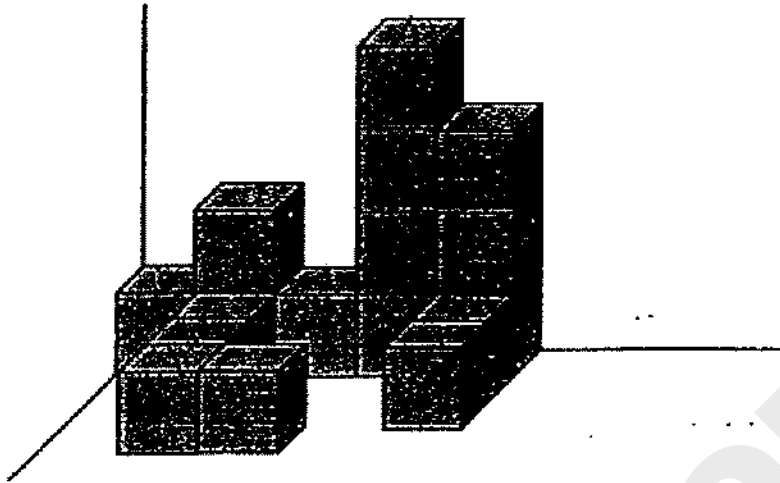
Ans : \_\_\_\_\_



19

The figure below shows a solid that is made up of 1-cm cubes. Find the volume of the solid.

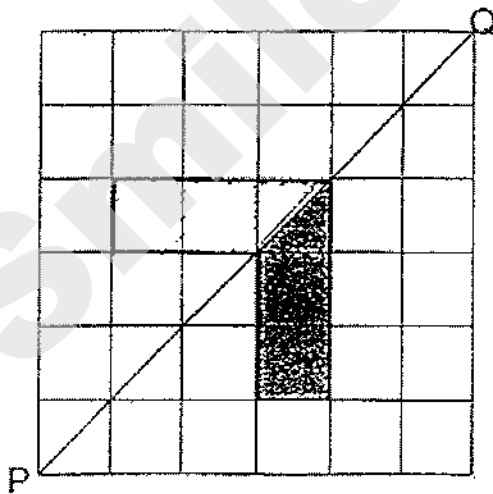
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Ans : \_\_\_\_\_  $\text{cm}^3$

20

Complete symmetric figure below with PQ as the line of symmetry.





Questions 21 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.

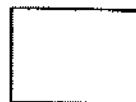
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*All diagrams in this paper are not drawn to scale unless stated otherwise.*

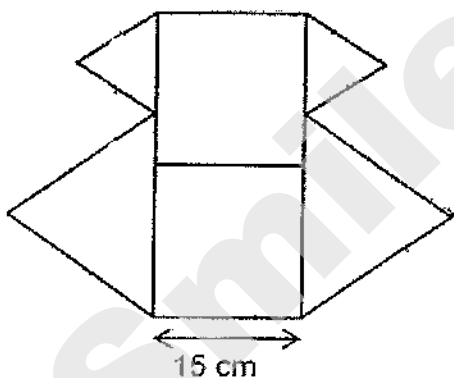
(20 marks)

- 21 Find the value of  $7 \div 8$ . Give your answer correct to 2 decimal places.

Ans : \_\_\_\_\_



- 22 The figure below, not drawn to scale, is formed using 2 identical squares, 2 identical large equilateral triangles and 2 identical small equilateral triangles. The length of the square is 15 cm. Find the perimeter of the figure.



Ans : \_\_\_\_\_ cm





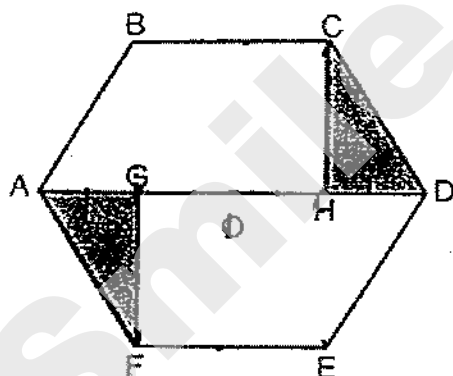
- 23 Nicole had some sugar.

She used  $\frac{1}{5}$  kg of the sugar to make cupcakes and  $\frac{1}{3}$  of the sugar to make jelly. She had 140 g of sugar left. How many grams of sugar did Nicole have at first?

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Ans : \_\_\_\_\_ g

- 24 ABCD and DEFA are identical trapeziums.  $AG=GO=OH=HD$ . What fraction of the figure is shaded? Leave your answer in the simplest form.



Ans : \_\_\_\_\_



- 25 Bridget is 12 years old now. Her cousin is  $y$  years younger than her. Find their combined age 5 years later in terms of  $y$ .

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Ans : \_\_\_\_\_

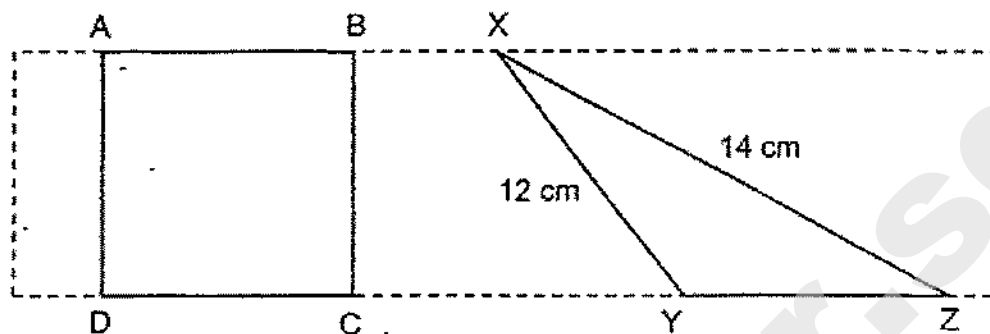
- 26 The table below shows the month of April in one year. Mr Osman plans to attend a course 38 days after 12 April. Which day will he be attending the course?

April						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
					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

Ans : \_\_\_\_\_



- 27 James cuts out a square and a triangle from a rectangular strip of paper as shown below. Square ABCD has an area of  $81\text{ cm}^2$ . Square ABCD has same the perimeter as Triangle XYZ. XY is 12 cm and XZ is 14 cm. Find the area of Triangle XYZ.



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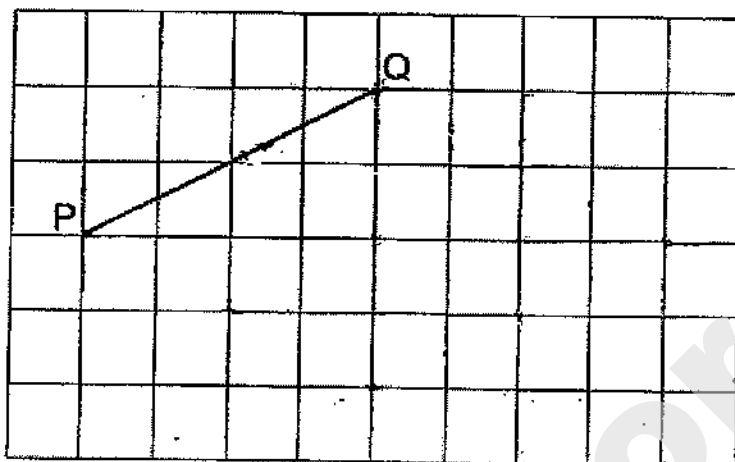
Ans : \_\_\_\_\_  $\text{cm}^2$



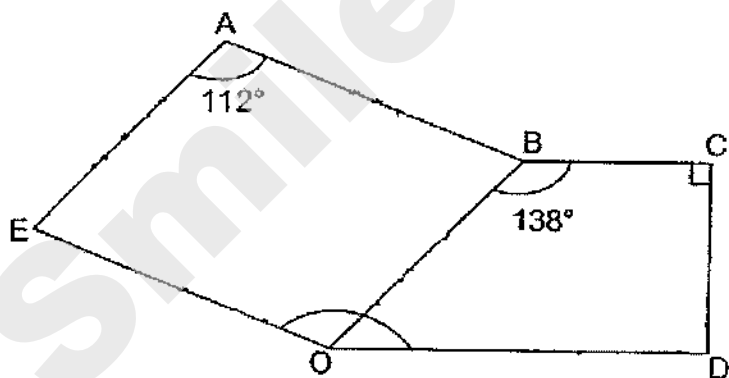
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- 28 In the square grid, PQ is a straight line.  
 PQ forms one side of a rhombus PQRS.  
 Complete the drawing of the rhombus PQRS. Label the points R and S.



- 29 The figure below is made up of a parallelogram ABOE and a trapezium BCDO.  $\angle EAB = 112^\circ$  and  $\angle OBC = 138^\circ$ . Find  $\angle EOD$ .



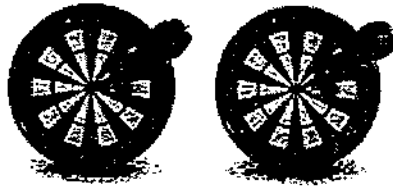
Ans : \_\_\_\_\_°



30

At a carnival, 5 boys played darts at 2 stations from 9 a.m. to 10.30 a.m. At any time, 2 of them played while the other 3 boys watched. If each of them had the same amount of time playing darts, how many minutes did each boy play the game?

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Ans : \_\_\_\_\_ min

End of paper  
Have you checked your work?





**Rosyth School**  
**Preliminary Examination 2020**  
**Mathematics**  
**Paper 2**  
**Primary 6**

Name: \_\_\_\_\_

Register No. \_\_\_\_\_

Class: Pr 6 - \_\_\_\_\_

Group No: \_\_\_\_\_

Date: 25 August 2020

Parent's Signature: \_\_\_\_\_

Time: 1 h 30 min

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 17	45	

Section	Maximum Mark	Marks Obtained
Paper 1	45	
Paper 2	55	
Total	100	



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)

**All diagrams in this paper are not drawn to scale unless stated otherwise.**

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1. Uncle Bob sells bubble tea at \$6.30 per cup of 700 ml. He only sells one size of bubble tea at his stall. Uncle Bob wants to make \$1000 a day. What is the minimum number of cups he must sell?

Ans : \_\_\_\_\_

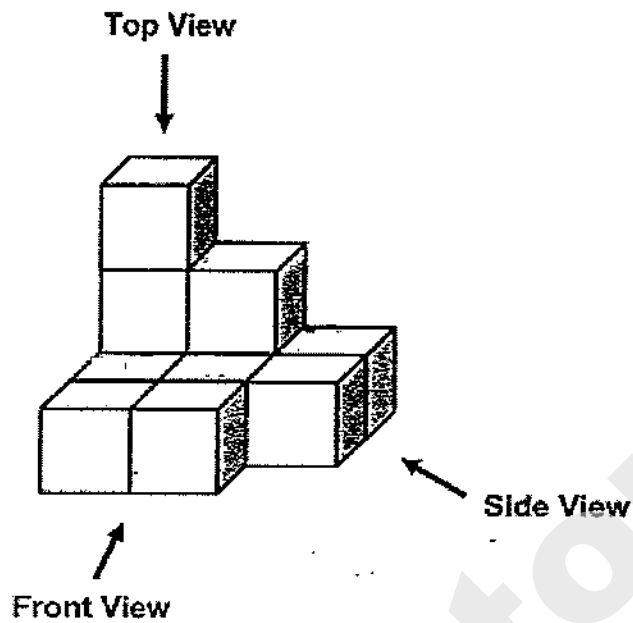
2. Miss Lee bought  $\frac{8}{9}$  kg of butter.  $\frac{1}{3}$  kg of butter was needed to bake a cake. She wanted to bake the greatest possible number of cakes.

Each of the statements below is either true, false or not possible to tell from the information given. For each statement, put a tick ( ✓ ) to indicate your answer.

Statement	True	False	Not possible to tell
The greatest number of cakes Miss Lee could bake was 2.			
After baking, Miss Lee had $\frac{2}{3}$ kg of butter left.			



3. The solid below is made up of 11 cubes.



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- (a) Draw the side view of the solid on the grid below.

Side View



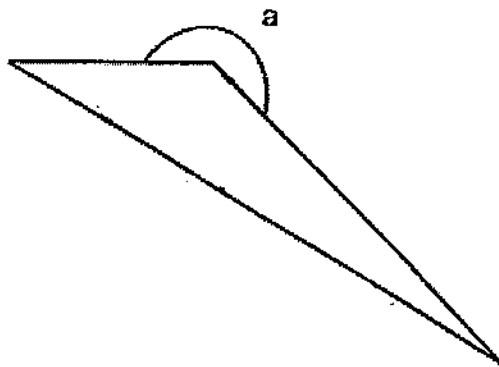
- (b) Norah painted the whole solid including the base. Then she took it apart into its 11 cubes. How many of the cubes have 2 of the faces painted?

Ans : \_\_\_\_\_





4. The diagram below is drawn to scale. Use a protractor to find  $\angle a$ .



Ans : \_\_\_\_\_ °

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5. There are two numbers. One is 3 times the other. They have exactly four common factors. Three of the common factors are 1, 3 and 7. What are the two numbers?

Ans : \_\_\_\_\_ and \_\_\_\_\_



For Questions 6 to 17, 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. For questions which require units, give your answers in the units stated.

(45 marks)

*All diagrams in this paper are not drawn to scale unless stated otherwise.*

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6. A sum of money was shared among three girls, Maggie, Alice and Cecilia. Maggie received \$ $m$ . Alice received twice as much money as Maggie. Cecilia received \$55 less than Alice.

- (a) Express the amount of Cecilia's money in terms of  $m$ .  
(b) If  $m = 35$ , find the total sum of money shared by the three girls.

Ans : (a) \_\_\_\_\_ [1]

(b) \_\_\_\_\_ [2]





7. Mr Chan bought some pots of plants at \$15 each. He also bought an equal number of identical bags of soil for the plants. The average price of a pot of plant and a bag of soil was \$12.50. Mr Chan paid \$45 less for the bags of soil than the plants. How much did he spend on the plants?

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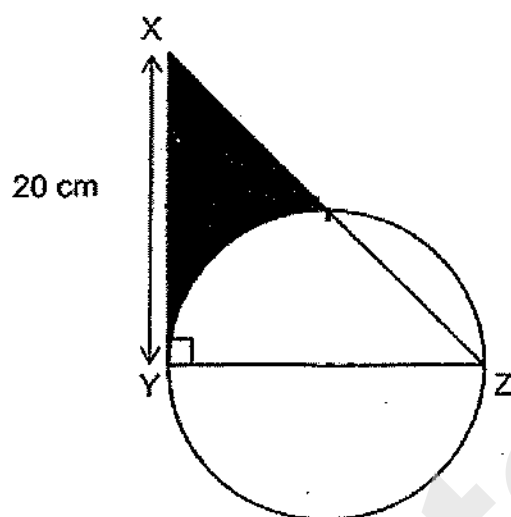
Ans : \_\_\_\_\_ [3]

☐

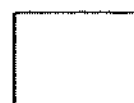


8. The figure below, not drawn to scale, is made up of a circle and a right-angled triangle XYZ.  $XY = YZ$ . XY is 20 cm. YZ is the diameter of the circle. Find the area of the shaded part. (Take  $\pi = 3.14$ )

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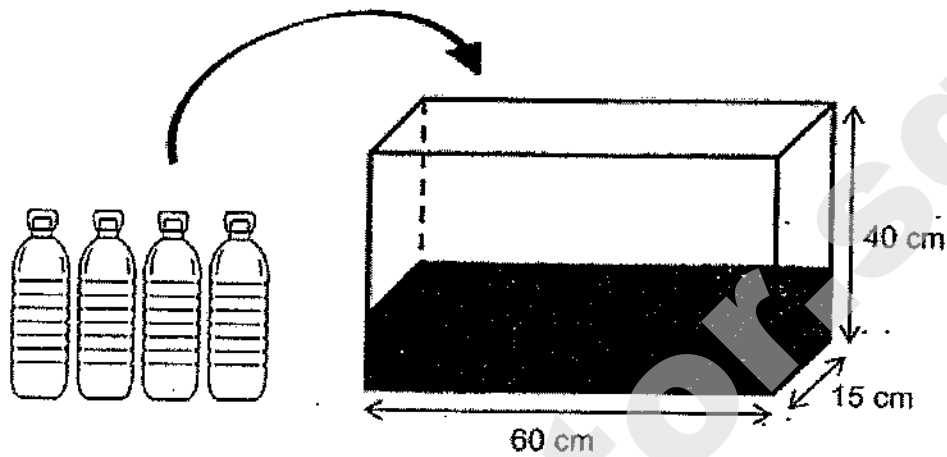
Ans : \_\_\_\_\_ [3]





9. A rectangular tank measuring 60 cm long by 15 cm wide by 40 cm high was  $\frac{1}{3}$  filled with water at first. Devi filled 4 identical bottles with water to the brim. Then she poured all of the water from the bottles into the rectangular tank and the tank became  $\frac{3}{4}$  full. What was the capacity of each bottle?

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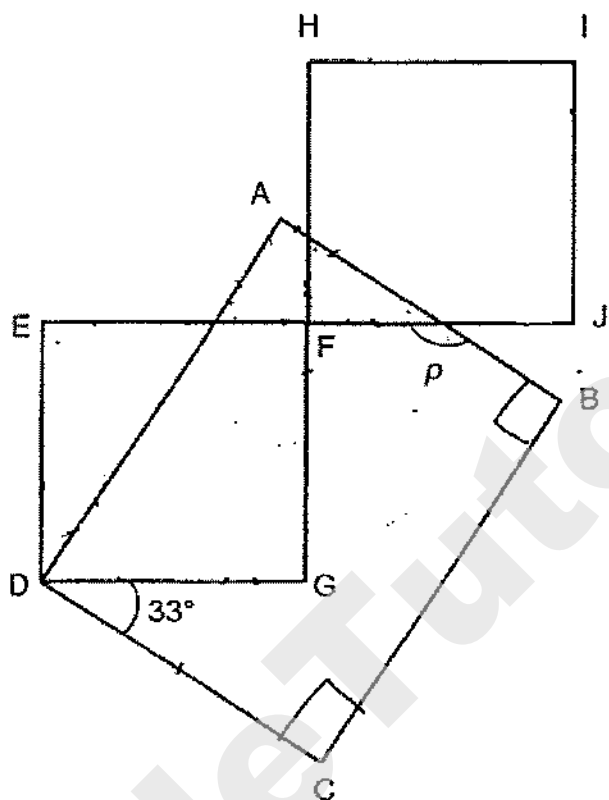


Ans : \_\_\_\_\_ [3]

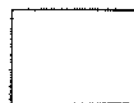


10. The figure is made up of a rectangle ABCD and 2 identical squares DEFG and HIJF. EJ and HG are straight lines. Find  $\angle p$ .

Do not  
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Ans : \_\_\_\_\_ [3]





11. Alex and Benjamin were each given some stickers. Alex had four times as many stickers as Benjamin. After Alex gave away 203 stickers and Benjamin gave away 26 stickers, Benjamin had three times as many stickers left as Alex. How many more stickers did Alex have than Benjamin at first ?

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Ans : \_\_\_\_\_ [4]





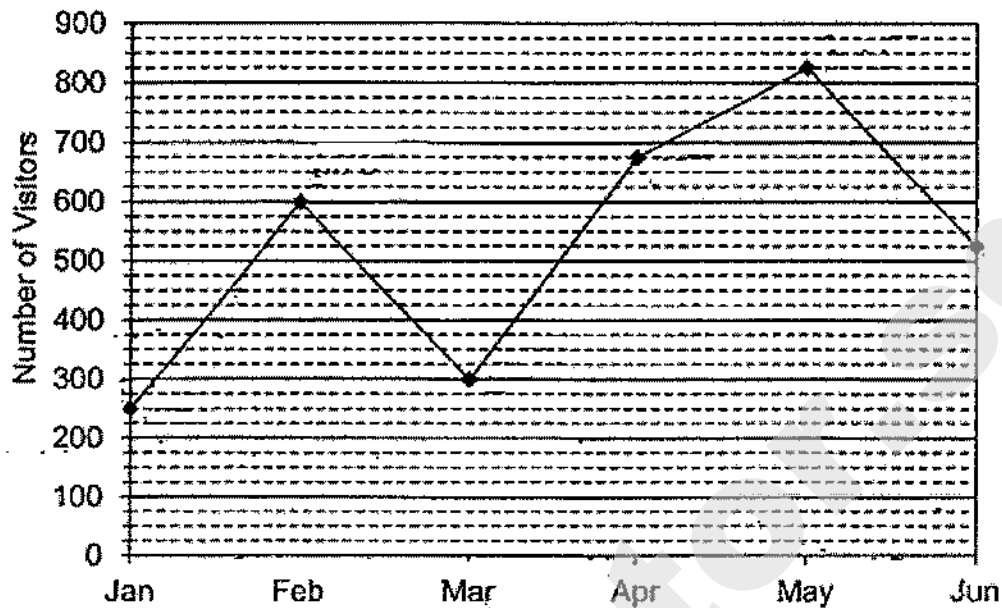
12. Mel has a total of 648 black and white buttons. He has 360 more black buttons than white buttons. He puts all the black buttons equally into empty black boxes and puts all the white buttons equally into empty white boxes. There are thrice as many black boxes as white boxes. Each black box contains 4 more buttons than each white box. How many buttons are there in each white box?

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Ans : \_\_\_\_\_ [4]



13. The graph shows the number of visitors to the museum from January to June.



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- a) In which one-month period was there the greatest change in the number of visitors to the museum ?
- b) In month of June, for every adult visitor, two visitors were children. How many visitors were children in June?
- c) From January to February what was the percentage increase in the number of visitors to the museum ?

Ans : a) Between \_\_\_\_\_ and \_\_\_\_\_ [1]

b) \_\_\_\_\_ [1]

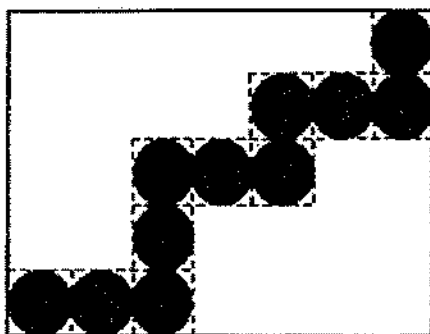
c) \_\_\_\_\_ [2]





14. The figure below shows a rectangle and 11 identical shaded circles. Each shaded circle is in contact with those next to it. The rectangle has a perimeter of 384 cm.

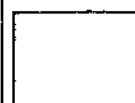
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- a) Find the radius of one circle.
- b) More identical shaded circles are added. The whole rectangle is then covered with a maximum number of shaded circles. Find the area of the rectangle that is not covered by the shaded circles.  
(Take  $\pi = \frac{22}{7}$ )

Ans : a) \_\_\_\_\_ [1]

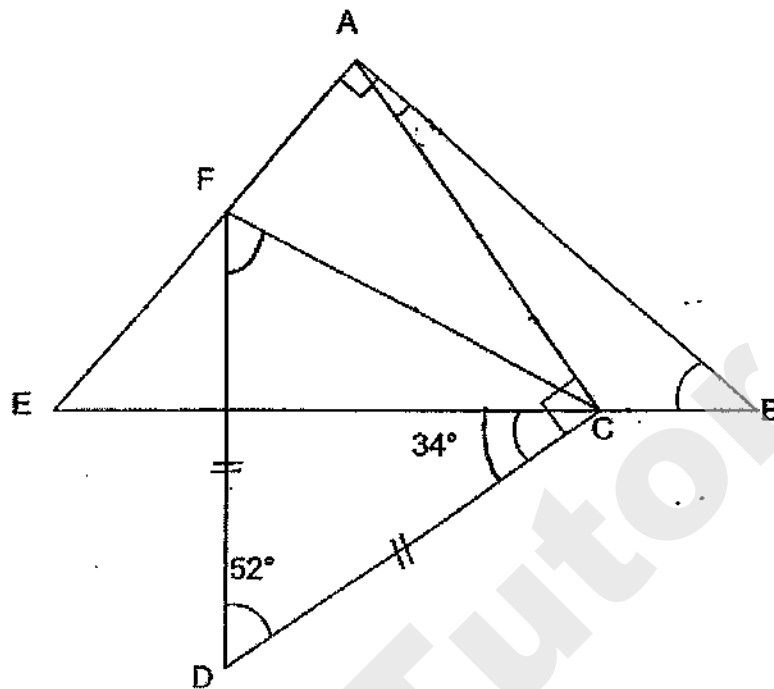
b) \_\_\_\_\_ [3]



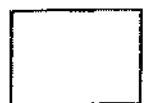


15. The figure below is made up of a right-angled triangle ABE and two isosceles triangles ACF and CDF.  $AC = FC$  and  $DF = DC$ . Find  $\angle ABC$ .

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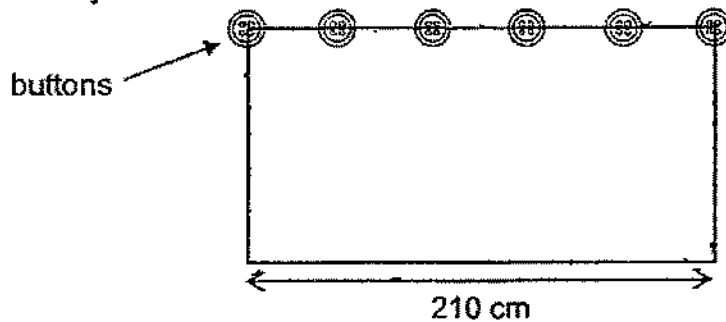


Ans : \_\_\_\_\_ [4]





16. Yanti decorated the sides of a rectangular board with 16 buttons. The buttons were placed at an equal distance apart along all the sides of the board. The length of the board was 210 cm. The figure below shows part of her layout.



- a) What was the breadth of the rectangular board?
- b) After that, Yanti decided to use a combination of ribbons and buttons. She spent  $\frac{1}{4}$  of her money on 16 buttons and 4 ribbons. The cost of each ribbon is twice the cost of each button. Yanti bought some more ribbons with  $\frac{1}{2}$  of her remaining money. How many ribbons did she buy altogether in the end ?

Ans : a) \_\_\_\_\_ [2]

b) \_\_\_\_\_ [3]

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17. Mdm Yap sold some T-shirts in March. The table belows shows the number of T-shirts sold for size S and L but not size M and XL.

Size of T-shirt	Number of T-shirt
S	80
M	?
L	400
XL	?

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space

- (a) 50% of the T-shirt were in size L. The ratio of the number of T-shirt in size M to size XL is 5 : 11. How many of the T-shirts were in size M?
- (b) Mdm Yap sold all of her T-shirts in the size of S at the usual price and all of her T-shirts in size M at a discount of 25%. She received a total of \$1620 from the sale. The amount of money she received from the sale of the T-shirt in size M was \$180 more than the sale of T-shirt in size S. What is the price difference in the cost of a T-shirt in size S and a T-shirt in size M at their usual price?

Ans : a) \_\_\_\_\_ [2]

b) \_\_\_\_\_ [3]



End of paper  
Have you checked your work?



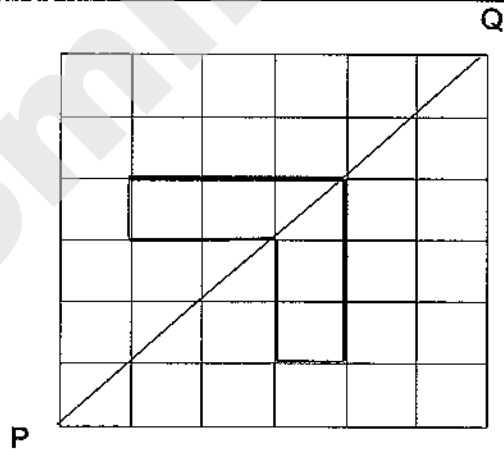
SCHOOL : ROSYTH PRIMARY SCHOOL  
 LEVEL : PRIMARY 6  
 SUBJECT : MATH  
 TERM : 2020 PRELIM

**PAPER 1 BOOKLET A**

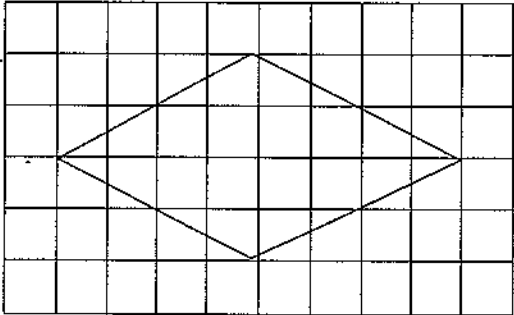
Q 1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
3	1	2	2	3	4	4	2	2	3

Q 11	Q12	Q13	Q14	Q15
3	1	1	3	1

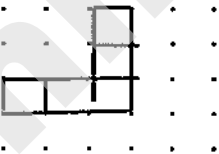
**PAPER 1 BOOKLET B**

Q16)	1, 5
Q17)	320%
Q18)	65
Q19)	17 cm <sup>3</sup>
Q20)	
Q21)	0.88
Q22)	150cm
Q23)	510g
Q24)	$\frac{1}{6}$




Q25)	$(34 - y)$
Q26)	Fri
Q27)	45cm <sup>2</sup>
Q28)	
Q29)	154°
Q30)	36 min

## PAPER 2

Q1)	$\$1000 \div \$6.30 = 158 \text{ R } \$460$ $158 + 1 = 159$
Q2)	True False
Q3)	a)  b) 2
Q4)	$a = 360 - 135 = 225^\circ$
Q5)	21 and 63
Q6)	$A \text{---} 2 \times \$m = \$(2m)$ $C \text{---} \$(2m) - \$55 = \$(2m - 55)$ $\$35 + \$(2 \times 35) + \$(2 \times 35 - 55)$ $= \$120$



Q7)	$\$12.50 \times 2 + \$25$ $\$25 - \$15 = \$10$ $\$15 - \$10 = \$5$ $\$45 \div 5 = 9$ $9 \times \$15 = 135$
Q8)	$r = 20\text{cm} \div 2 = 10\text{cm}$ area of 1  $\frac{1}{4} \times 10 \times 10 \times 3.14 = 78.5$  $\frac{1}{2} \times 10 \text{ cm} \times 10\text{cm} = 50\text{cm}^2$ $\frac{1}{2} \times 20\text{cm} \times 20\text{cm} = 200\text{cm}^2$ $200\text{cm}^2 - 50\text{cm}^2 - 78.5\text{cm}^2$ $= 71.5\text{cm}^2$
Q9)	$\frac{5}{12} \times 40 \times 15 \times 60 = 15000$ $15000 \div 4 = 3750\text{ml}$
Q10)	$\text{ADG} = 90 - 33 = 57$ $\text{EDA} = 90 - 57 = 33$ $X = 180 - 90 - 33 = 57$ $P = 57 + 90^\circ$
Q11)	$12u - 609 = 1u - 26$ $11u = 583 \div 11 = 53$ $4u - 1u = 3u$ $3u = 3 \times 53 = 159$
Q12)	$540 \div 3 = 168$ $168 - 144 = 24$ $24 \div 4 = 6$ $144 \div 6 = 24$
Q13)	a) Mar and Apr b) 350 c) 140%
Q14)	a) 8cm b) 1920cm <sup>2</sup>
Q15)	43°



Q16)	a)126cm b)22
Q17)	a)100 b)\$3

SmileTutor.sg



KYS / AS / TMY / SL / CT

Index No.

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**SINGAPORE CHINESE GIRLS' SCHOOL**

**PRELIMINARY EXAMINATION 2020**

**PRIMARY 6**

**MATHEMATICS  
PAPER 1**

**BOOKLET A**

Name : \_\_\_\_\_ ( )

Class : Primary 6 SY / C / G / SE / P

18 August 2020

		Marks attained	Max Mark
Paper 1	Booklet A		20
	Booklet B		25
Paper 2			55
Total Marks			100

Parent's Signature

15 Questions  
20 Marks

Total Time for Booklets A and B: 1 h

**INSTRUCTIONS TO CANDIDATES**

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.



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) and shade your answer on the Optical Answer Sheet.  
(20 marks)

---

1. What does the value of the digit 2 in 5.629 stand for?

- (1) 2 ones
- (2) 2 tenths
- (3) 2 hundredths
- (4) 2 thousandths

2. 3817 cm = \_\_\_\_\_ m

- (1) 0.3817 m
- (2) 3.817 m
- (3) 38.17 m
- (4) 381.7 m

3. Which one of the following would be the most likely mass of a watermelon?

- (1) 5 g
- (2) 5 kg
- (3) 50 g
- (4) 50 kg

4. What is the value of  $5k - \frac{3k}{2}$  when  $k = 6$ ?

- (1) 30
- (2) 21
- (3) 12
- (4) 9



5. Which of the following is the same as  $6 + \frac{9}{15}$ ?

(1)  $6 \times \frac{15}{9}$

(2)  $6 \times \frac{9}{15}$

(3)  $\frac{1}{6} \times \frac{9}{15}$

(4)  $\frac{1}{6} \times \frac{15}{9}$

6. Which of the following fractions is larger than  $\frac{1}{5}$ ?

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

(2)  $\frac{2}{11}$

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

(4)  $\frac{2}{30}$

7. The price of a mobile phone is \$200 excluding GST. GST is 7%.  
What is the price of the mobile phone including GST?

(1) \$14

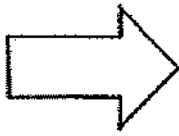
(2) \$186

(3) \$207

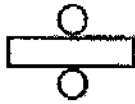
(4) \$214



8. Which of the following figures is not symmetrical?



(1)



(2)



(3)



(4)

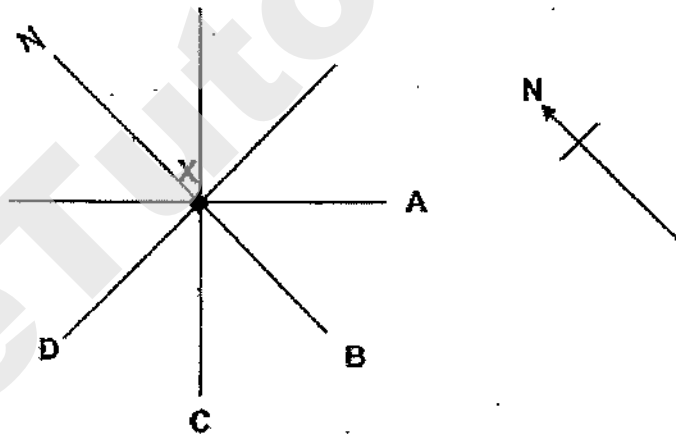
9. Muthu is at Point X facing North. He turns  $135^\circ$  anti-clockwise. Which direction is he facing now?

(1) A

(2) B

(3) C

(4) D



10. Express 143 min in hours and minutes.

(1) 1 h 23 min

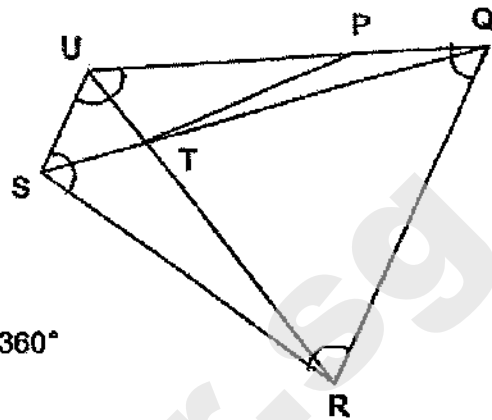
(2) 1 h 43 min

(3) 2 h 23 min

(4) 2 h 43 min



11. In the figure,  $UTR$  and  $QTS$  are straight lines.  $SUQR$  is a trapezium.  
Which of the following statements is false?



- (1)  $\angle PTU = \angle RTS$  False  
 (2)  $\angle UTS = \angle QTR$   
 (3)  $\angle SUQ + \angle UQR = 180^\circ$   
 (4)  $\angle QRS + \angle RSU + \angle SUQ + \angle UQR = 360^\circ$
12. Mr Raju puts 40 apples into a carton. There are 24 red ones and the rest are green. Find the ratio of the number of green apples to that of the total number of red and green apples.
- (1) 2 : 3  
 (2) 2 : 5  
 (3) 3 : 2  
 (4) 3 : 5
13. Jean bought a speaker and a laptop. She spent \$2000 altogether. The speaker is 4% of the total cost. What is the cost of the laptop?
- (1) \$80  
 (2) \$96  
 (3) \$1920  
 (4) \$1996



14. Tom took a flight from Singapore to London. The journey took 13 h 30 min. He reached London at 12.45 p.m. (Singapore time) on Thursday. At what time and which day did his flight take off from Singapore?

- (1) 2.15 a.m., Friday
- (2) 2.15 p.m., Friday
- (3) 11.15 p.m., Thursday
- (4) 11.15 p.m., Wednesday

15. Jeremy had 7 l of juice. He drank  $\frac{1}{2}$  of it and gave  $\frac{1}{4}$  l to his friend. How much juice had he left?

- (1)  $1\frac{3}{4}$  l
- (2)  $3\frac{1}{4}$  l
- (3)  $6\frac{1}{4}$  l
- (4)  $7\frac{3}{4}$  l

(Go on to Booklet B)



KYS / AS / TMY / SL / CT

Index No.

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SINGAPORE CHINESE GIRLS' SCHOOL

PRELIMINARY EXAMINATION 2020

PRIMARY 6

MATHEMATICS  
PAPER 1

BOOKLET B

Name : \_\_\_\_\_ ( )

Class : Primary 6 SY / C / G / SE / P

18 August 2020

Paper 1	Mark attained	Max Mark
Booklet B		25

15 Questions  
25 Marks

Total Time for Booklets A and B: 1 h

**INSTRUCTIONS TO CANDIDATES**

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.



**Booklet B**

Questions 16 to 20 carry 1 mark each. Write your answers in the spaces provided.  
For questions which require units, give your answers in the units stated. (5 marks)

Do not write  
in this  
column

16.  $18 : 27 = 4 : \underline{\hspace{2cm}}$

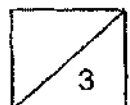
Ans:                     

17. What is the value of  $408 - 12 + (2 + 4) \times 4$ ?

Ans:                     

18. List the common factors of 40 and 45.

Ans:                     



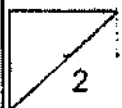
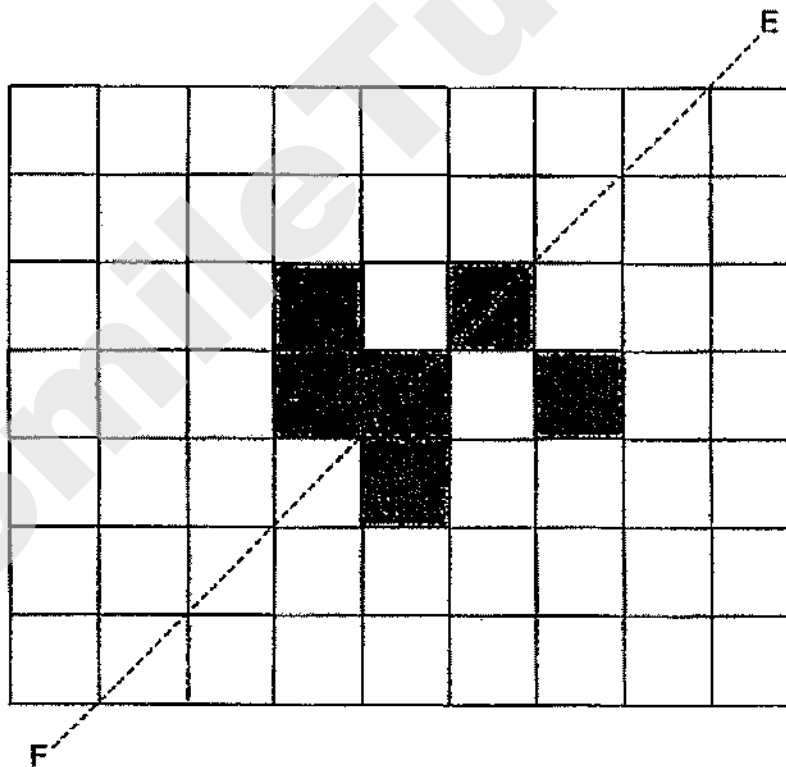


19. Find the volume of a 4-cm cube.

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in this  
column

Ans: \_\_\_\_\_  $\text{cm}^3$

20. In the figure below, dotted line EF is a line of symmetry. Shade 2 more squares to complete the figure.





Questions 21 to 30 carry 2 marks each. Show your working clearly in the space for each question and write your answers in the space provided. For questions which require units, give your answers in the units stated. (20 marks)

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column

Use the table below to answer questions 21 and 22.

The table below shows prices of durians and mangoes at a fruit stall.

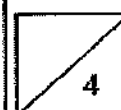
Item	Price per kg
Durian	\$ $(m + 14)$
Mango	\$ $m$

21. Peter bought 1 kg of durians and 3 kg of mangoes. How much did he spend?  
Express your answer in terms of  $m$ .

Ans: \$ \_\_\_\_\_

22. Amara spent \$74 on 1 kg of durians and some mangoes.  
If  $m = 6$ , how many kg of mangoes did he buy?

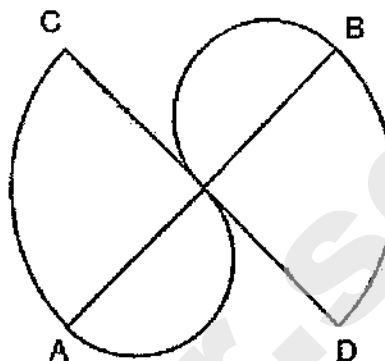
Ans: \_\_\_\_\_ kg





23. The figure below is made up of 2 identical quadrants and 2 semicircles.

$AB = CD = 14$  cm. Find the perimeter of the following figure. (Take  $\pi = \frac{22}{7}$ )



Ans: \_\_\_\_\_ cm

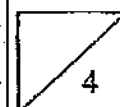
24. Mr Wong bought some green balloons and yellow balloons for his class.

Each of his students used a green balloon and a yellow balloon.

$\frac{2}{5}$  of the green balloons and  $\frac{3}{4}$  of the yellow balloons were left.

What fraction of the total number of balloons did his class use?

Ans: \_\_\_\_\_





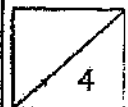
25. Sammy is twice the age of Tim but half that of Ray.  
Given that Ray is 24 years old, what is their average age?

Do not write  
in this  
column

Ans: \_\_\_\_\_

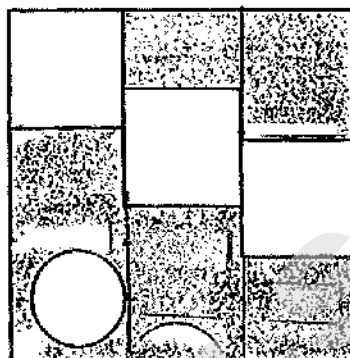
26. A bookshelf can withstand the weight of either 45 small books or 30 big books. Given that it already contained 24 small books and 8 big books, how many more big books can be place on the bookshelf?

Ans: \_\_\_\_\_





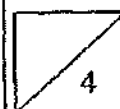
27. The figure is made up of 1 big square, 3 identical small squares and 1 circle.  
The circle is half the size of a small square.  
What fraction of the figure is shaded?



Ans: \_\_\_\_\_

28. Alyssa cut a piece of ribbon into 2 equal pieces. The total length of  $\frac{1}{4}$  of the first piece,  $\frac{2}{3}$  of the second piece is 110 cm. What is the original length of the ribbon?

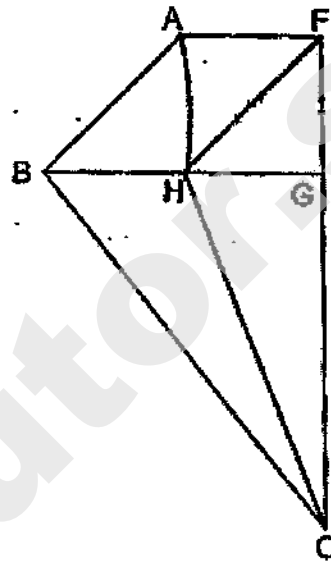
Ans: \_\_\_\_\_ cm



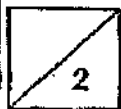


29. The figure below is made up of a parallelogram and triangles.  
 $BH = HG = GF$ .  $CG$  is 3 times the length of  $GF$ .  
 $BG$  and  $FC$  are straight lines. Given that  $FG = 6$  cm,  
 find the area of the figure.

Do not write  
in this  
column



Ans: \_\_\_\_\_  $\text{cm}^2$



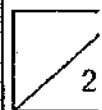


30. Mr Tan and Mr Nordin had some fruits. 40% of Mr Nordin's fruits were oranges and the rest were apples. 80% of Mr Tan's fruits were oranges and the rest were apples.

*Each of the statements below is either true, false or not possible to tell from the information given. For each statement, put a tick (✓) to indicate your answer.*

Statement	True	False	Not possible to tell
Mr Nordin had more apples than oranges.			
Mr Tan had 80 oranges.			
Mr Tan had more oranges than Mr Nordin.			

End of Booklet B





KYS / (AS) / TMY / SL / CT

Index No.

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SINGAPORE CHINESE GIRLS' SCHOOL

PRELIMINARY EXAMINATION 2020

PRIMARY 6

MATHEMATICS

PAPER 2

Name : \_\_\_\_\_ ( )

Class : Primary 6 SY / C / G / SE / P

18 August 2020

Paper 2	Mark	Max Mark
		55

Parent's Signature

17 Questions  
55 Marks

Total Time for Paper 2: 1 h 30 min

**INSTRUCTIONS TO CANDIDATES**

Do not open this booklet until you are told to do so.

Follow all instructions carefully.

Answer all questions.

You are allowed to use the calculator.



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

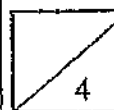
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- 1 Amy and Bala have 275 beads. If Amy gives Bala 20 beads, Bala will have 10 times as many beads as Amy. How many beads does Amy have?

Ans: \_\_\_\_\_

- 2 A farmer had some apples. She gave 1200 apples to her friend and  $\frac{3}{8}$  of the remainder to her aunt. She had 150 apples left. How many apples did she have at first?

Ans: \_\_\_\_\_





3. A machine takes  $\frac{1}{6}$  of a minute to assemble a phone. How many phones can it assemble in 5 minutes?

Ans: \_\_\_\_\_

4. Allison's watch is programmed to ring every 5 minutes. Her alarm clock is programmed to ring every 8 minutes. At what time will the 2 devices ring together again given that the last time they rang together was at 10 a.m.?

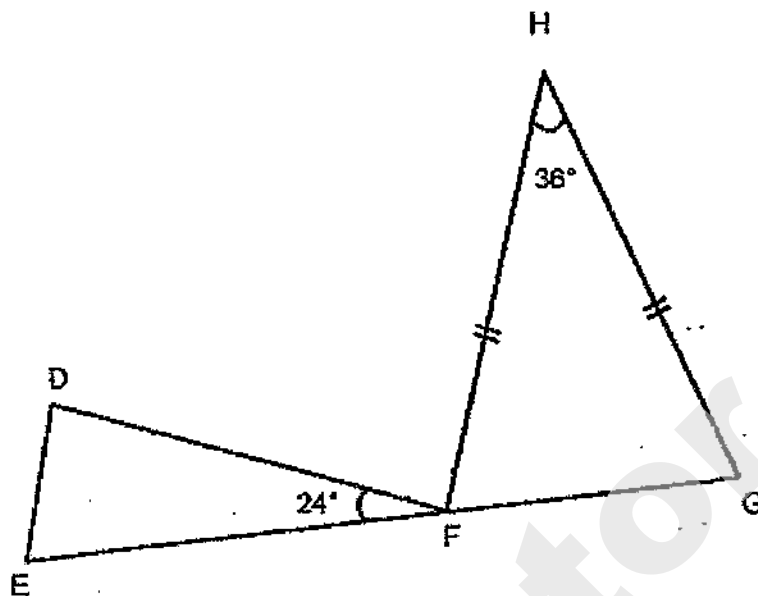
Ans: \_\_\_\_\_



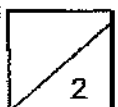


5. In the figure below, FHG is an isosceles triangle. EFG is a straight line.  
Find  $\angle DFH$ .

Do not write in  
this column



Ans: \_\_\_\_\_



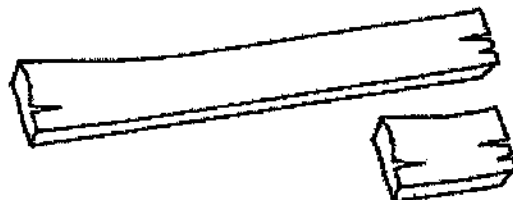


For questions 6 to 17, show your working clearly in the space below each question and write your answers in the spaces provided. The number of marks awarded is shown in brackets [ ] at the end of each question or part-question. (45 marks)

6. Tiffany bought some chocolates and sweets. The number of sweets is 3 times the number of chocolates. After giving away 10 sweets and 10 chocolates, the number of sweets is 5 times the number of chocolates. How many chocolates did she buy?

Ans: \_\_\_\_\_ [3]

7. Mr Lim has big pieces of wood measuring 12.5 m each. He cuts the wood into smaller pieces measuring 30 cm each. He needs 290 small pieces of wood to build a fence. What is the least number of big pieces of wood he needs to build the fence?



Ans: \_\_\_\_\_ [3]

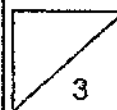




8. Sandra has some lemon and peppermint sweets in a container.  $\frac{3}{5}$  of the sweets are peppermint. After she adds in another 30 peppermint sweets,  $\frac{3}{4}$  of the sweets are peppermint. How many sweets does she have in the container in the end?

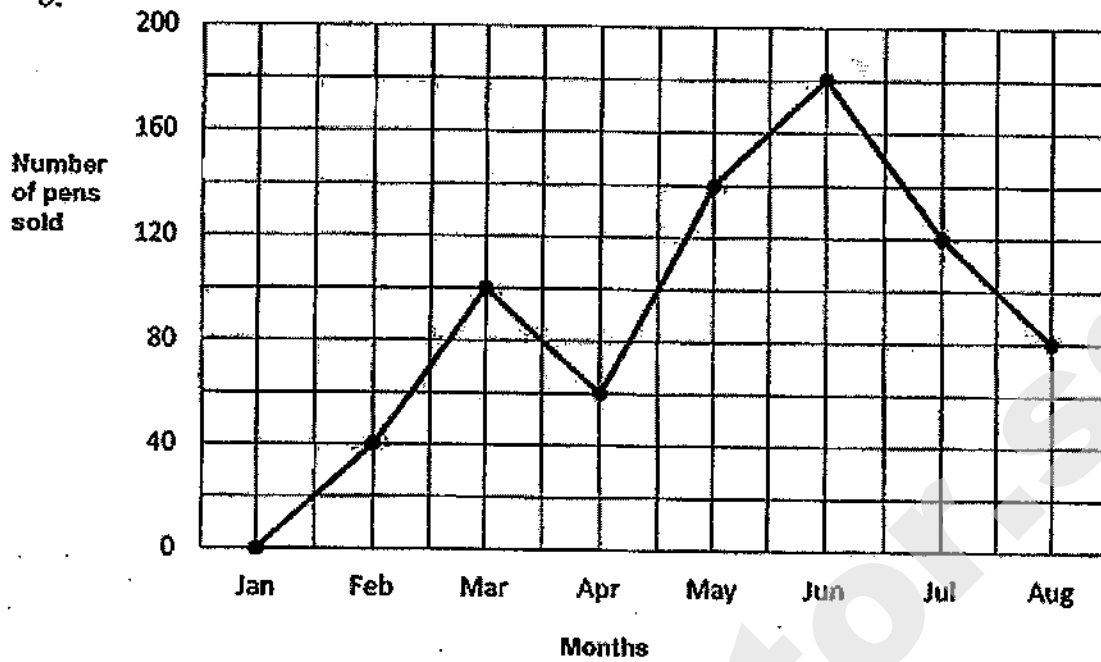
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Ans: \_\_\_\_\_ [3]





9.

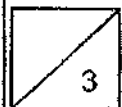


The graph above shows the number of pens sold in a shop.

- The greatest increase in sales happened during which one-month period?
- Find the percentage decrease from June to July.

Ans: a) \_\_\_\_\_ to \_\_\_\_\_ [1]

b) \_\_\_\_\_ [2]

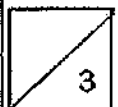




10. Painter A takes 2 h to paint a room. Painter B takes 3 h to paint the same room.  
How long will they take if they were to paint the room together?

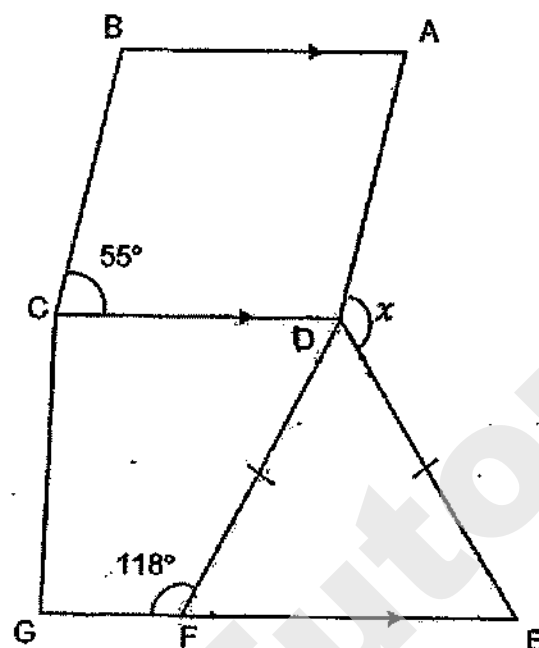
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Ans: \_\_\_\_\_ [3]





11. ABCD is a rhombus. DCGF is a trapezium. DEF is an isosceles triangle.  
Find  $\angle x$ .



Ans: \_\_\_\_\_ [4]

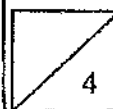




12. A bag of kiwis was shared among 3 children, Xavier, Yanny and Zara. Xavier received 40% of the kiwis plus 2 more. Yanny received 50% of the remainder plus 8 more. If Zara received 54 kiwis, how many kiwis were in the bag at first?

Do not write  
this column

Ans: \_\_\_\_\_ [4]





13. Tables and chairs are arranged in the figures below.



Figure 1

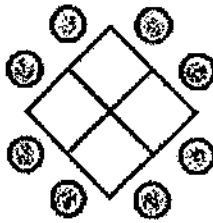


Figure 2

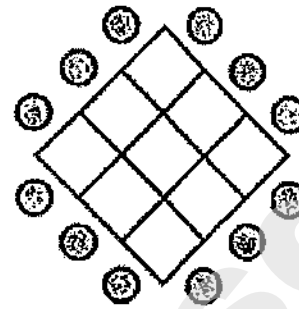


Figure 3

- a) Complete the table below.

Figure	Number of tables (squares)	Number of chairs (circles)	Total
1	1	4	5
2	4	8	12
3	9	12	21
4			

[3]

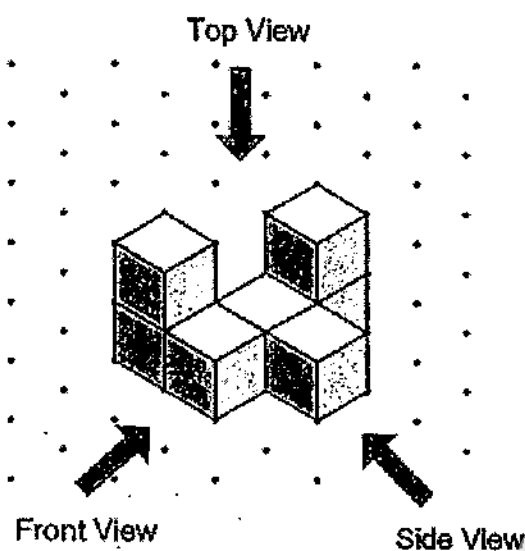
- b) What is the total number of tables and chairs needed to form Figure 39?

Ans: b) \_\_\_\_\_ [2]



14. The solid below is made up of 1-cm cubes stacked together.

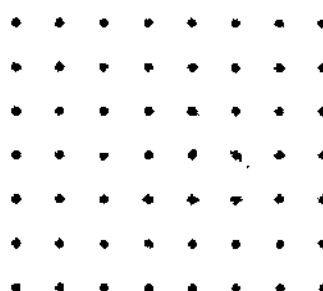
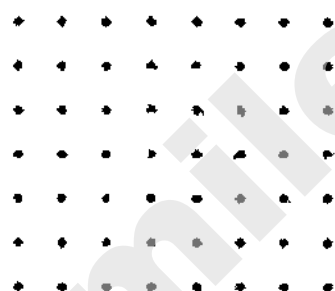
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a) Draw the top and front view of the solid on the grid below.

Top View

Front View



[2]

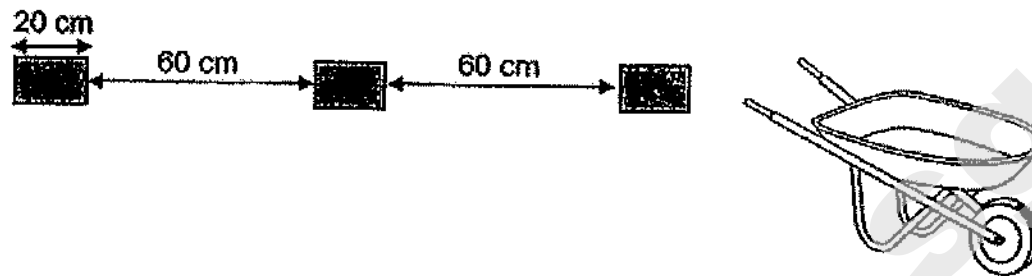
b) From the diagram as shown above, how many more 1-cm cubes are needed to form a 5-cm cube?

Ans: \_\_\_\_\_ [2]

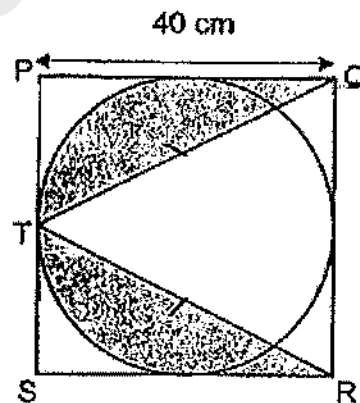




- 15 a) A part of the wheel of a wheelbarrow was coated with paint as shown in the diagram. The diagram below showed the marking made by the wheel when it moved through a distance.

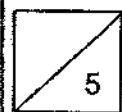


- 15 b) PQRS is a square. T is the mid-point of PS.  $TQ = TR$ .  
Find the area of the shaded parts. (Take  $\pi = 3.14$ )



Ans: a) \_\_\_\_\_ [2]

b) \_\_\_\_\_ [3]





- 16 A plate of chicken rice cost \$4 while a plate of spaghetti cost \$7. Miss Tan ordered plates of chicken rice and spaghetti in the ratio 2 : 5 for her pupils in a camp. She paid \$258 in total.

- a) How many plates of chicken rice did she order?  
b) How much more money did she spend on spaghetti than chicken rice?

Do not write  
this column

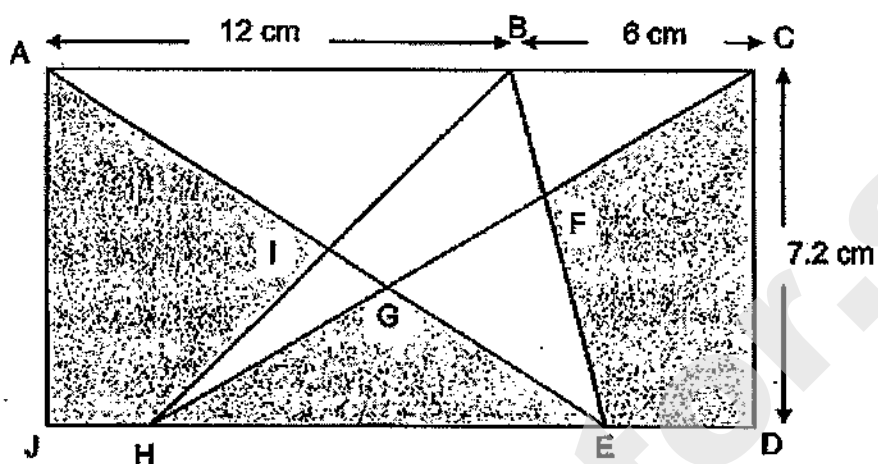
Ans: a) \_\_\_\_\_ [2]

b) \_\_\_\_\_ [2]





17. The figure below is made up of a rectangle and triangles. The area of the quadrilateral BFGI is  $21 \text{ cm}^2$ . Find the area of the shaded part.



Ans: \_\_\_\_\_ [4]

End of Paper





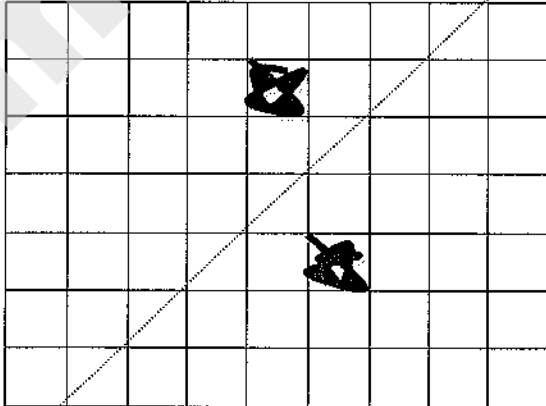
SCHOOL : SCGS PRIMARY SCHOOL  
 LEVEL : PRIMARY 5  
 SUBJECT : MATH  
 TERM : 2020 PRELIM

**PAPER 1 BOOKLET A**

Q 1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
3	3	3	2	1	1	4	4	3	3

Q 11	Q12	Q13	Q14	Q15
1	2	3	4	2

**PAPER 1 BOOKLET B**

Q16)	6
Q17)	400
Q18)	1 , 5
Q19)	64 cm <sup>3</sup>
Q20)	



Q21)	Mango $\rightarrow \$m \times 3 = \$3m$ Durian $\rightarrow \$(m + 14)$ Total $\rightarrow \$3m + \$(m + 14)$ $= \$ (4m + 14)$
Q22)	$\$74 - \$20 = \$54$ $\$54 \div \$6 = 9\text{kg}$
Q23)	Circumference $\rightarrow \frac{1}{4} \times \frac{22}{7} \times \frac{14}{1} = 11\text{cm}$  Circumference $\rightarrow \frac{1}{2} \times \frac{22}{7} \times \frac{7}{1} = 11$  $11 \times 4 = 44$ $7 \times 2 = 14$ $44 + 14 = 58$
Q24)	$\frac{3}{5} + \frac{1}{4}$ $= \frac{3}{5} = \frac{3}{12}$ $= \frac{6}{17}$
Q25)	$4u \rightarrow 24$ $1u \rightarrow 24 \div 4 = 6$ $7u \rightarrow 6 \times 7 = 42$ Average $\rightarrow 42 \div 3 = 14$
Q26)	6
Q27)	$\frac{7}{18}$
Q28)	1 <sup>st</sup> piece $\rightarrow \frac{1}{4} = \frac{3}{12}$ 2 <sup>nd</sup> piece $\rightarrow \frac{2}{3} = \frac{8}{12}$ $3u + 8u = 11u$ $11u \rightarrow 110$ $24u \rightarrow \frac{110}{11} \times 24 = 240\text{ cm}$
Q29)	$A \rightarrow 6 \times 6 = 36$ $D \rightarrow 6 \times 6 \times \frac{1}{2} = 18$ $C+B \rightarrow 12 \times 18 \times \frac{1}{2} = 108$ $A+D+C+B \rightarrow 36 + 18 + 108 = 162\text{ cm}^2$

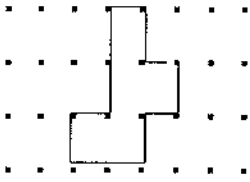
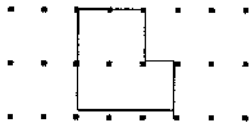


Q30)		True	False	Not possible to tell
	Mr Nordin had more apples than oranges	✓		
	Mr Tan had 80 oranges			✓
	Mr Tan had more oranges than Mr Nordin			✓

## PAPER 2

Q1)	$10u + 1u = 11u$ $1u \rightarrow 275 \div 11 = 25$ $25 + 20 = 45$
Q2)	$5u \rightarrow 150$ $1u \rightarrow 150 \div 5 = 30$ $8u \rightarrow 30 \times 8 = 240$ $\text{At first} \rightarrow 240 + 1200 = 1440$
Q3)	$10 \text{ seconds} \rightarrow 1 \text{ phone}$ $60 \text{ seconds} \rightarrow 6 \text{ phones}$ $1 \text{ min} \rightarrow 6 \text{ phones}$ $5 \text{ mins} \rightarrow 6 \times 5 = 30$
Q4)	10 40 a.m.
Q5)	$180^\circ - 36^\circ = 144^\circ$ $144^\circ \div 2 = 72^\circ$ $180^\circ - 72^\circ - 24^\circ = 84^\circ$
Q6)	$1u \rightarrow 10$ $2u \rightarrow 10 \times 2 = 20$
Q7)	$12.5\text{m} = 1250\text{cm}$ $1250 \div 30 \approx 41$ $290 \div 41 \approx 8$



Q8)	$3u \rightarrow 30$ $1u \rightarrow 30 \div 3 = 10$ $8u \rightarrow 10 \times 8 = 80$
Q9)	a) April to May b) $\frac{60}{180} \times 100\% = 33\frac{1}{3}\%$
Q10)	5 rooms $\rightarrow$ 6 hours 1 room $\rightarrow$ 1.2 hours 1.2 hours = 1h 12 mins
Q11)	$360^\circ - 55^\circ - 55^\circ = 250^\circ$ $250^\circ \div 2 = 125^\circ$ $180^\circ - 118^\circ = 62^\circ$ $180^\circ - 62^\circ - 62^\circ = 56^\circ$ $\angle X \rightarrow 360^\circ - 62^\circ - 125^\circ - 56^\circ = 117^\circ$
Q12)	$50\% \rightarrow 8 + 54 = 62$ $100\% \rightarrow 62 \times 2 = 124$ Total $60\% \rightarrow 124 + 2 = 126$ $100\% \rightarrow \frac{126}{60} \times 100 = 210$
Q13)	a) 16, 16, 32 b) $39 \times 39 = 1521$ circles $\rightarrow 39 \times 4 = 156$ Total $\rightarrow 1521 + 156 = 1677$
Q14)	a) <div style="display: flex; justify-content: space-around; align-items: center;">   </div> b) $5 \times 5 \times 5 = 125$ $125 - 7 = 118$



Q15)	<p>a) <math>20\text{ cm} + 60\text{ cm} = 80\text{ cm}</math></p> <p>b) Area of A <math>\rightarrow \frac{1}{2} \times 40\text{cm} \times 40\text{cm} = 800\text{cm}^2</math></p> <p>square <math>\rightarrow 40\text{cm} \times 40\text{cm} = 1600\text{cm}^2</math></p> <p>circle <math>\rightarrow 3.14 \times 20\text{cm} \times 20\text{cm} = 1256\text{cm}^2</math></p> <p><math>1600\text{cm}^2 - 1256\text{cm}^2 = 344\text{cm}^2</math></p> <p><math>344\text{cm}^2 \div 4 = 86\text{cm}^2</math></p> <p>Shaded <math>\rightarrow 1600\text{cm}^2 - 86\text{cm}^2 - 86\text{cm}^2 - 800\text{ cm}^2 = 628\text{cm}^2</math></p>
Q16)	<p>Chicken : spaghetti</p> <p>2 : 5</p> <p>1set <math>\rightarrow (2 \times 4) + (5 \times 7) = 43</math></p> <p>No. of sets <math>\rightarrow 258 \div 43 = 6</math></p> <p>Plates of chicken rice <math>\rightarrow 6 \times 2 = 12</math></p> <p>Plates of spaghetti <math>\rightarrow 6 \times 5 = 30</math></p> <p>Diff <math>\rightarrow (30 \times 7) - (12 \times 4) = 162</math></p>
Q17)	<p>Area ACDJ <math>\rightarrow 18 \times 7.2 = 129.6</math></p> <p>Area DABC <math>\rightarrow \frac{1}{2} \times 12 \times 7.2 = 43.2</math></p> <p>Area ABCH <math>\rightarrow \frac{1}{2} \times 6 \times 7.2 = 21.6</math></p> <p>Unshaded <math>\rightarrow 43.2 + 21.6 - 21 = 43.8</math></p> <p>Shaded <math>\rightarrow 129.6 - 43.8 = 85.8\text{cm}^2</math></p>





## **2020 PRIMARY 6 – PRELIMINARY EXAMINATION**

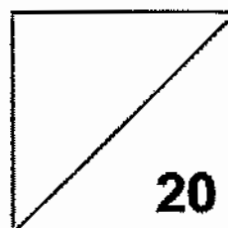
Name: \_\_\_\_\_ ( ) Date: 20 August 2020

Class: Primary 6 ( )

Time: 8.00 a.m. - 9.00 a.m.

Paper 1 comprises 2 booklets, A and B.

### **MATHEMATICS PAPER 1 (BOOKLET A)**



#### **INSTRUCTIONS TO CANDIDATES**

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. Shade your answers in the Optical Answer Sheet (OAS) provided.
6. You are **not** allowed to use a calculator.



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. Farmer Brown harvested 109 436 oranges last year.  
Express this number to the *nearest hundred thousand*.

- (1) 100 000
- (2) 109 000
- (3) 110 000
- (4) 109 400

2.  $20 + \frac{7}{10} + \frac{7}{1000} = \underline{\hspace{2cm}}$ .

- (1) 20.007
- (2) 20.077
- (3) 20.707
- (4) 20.770

3. There are 70 adults and children in a hall. 56 are adults. What is the ratio of the number of children to the total number of people in the hall?

- (1) 1 : 4
- (2) 1 : 5
- (3) 4 : 1
- (4) 4 : 5



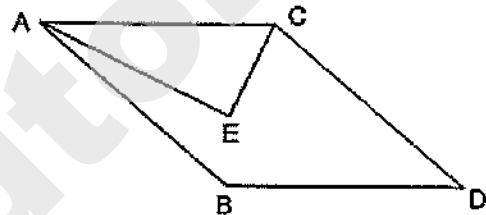
4.  $3 : 9 = 4 : \square$

What is the missing number in the box?

- (1) 10
- (2) 12
- (3) 27
- (4) 36

5. Which two lines in the figure are perpendicular to each other?

- (1) AC and CD
- (2) AB and CD
- (3) AE and CE
- (4) AC and BD



6. My teacher paid \$25 for 50 notepads. How much did each notepad cost?

- (1) 5 cents
- (2) 2 cents
- (3) 50 cents
- (4) 20 cents

7. Round each of the numbers to the nearest whole number.

What is the estimated value?

$$32.6 + 40.4 \times 9.51$$

- (1) 430
- (2) 433
- (3) 700
- (4) 730



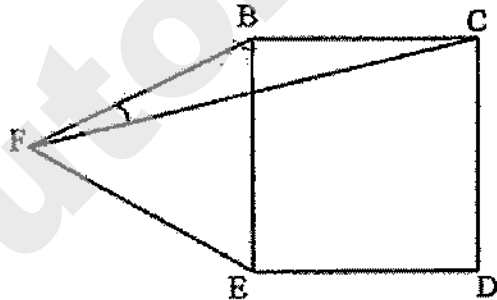
8. Find the perimeter of the semicircle. (Take  $\pi = \frac{22}{7}$ )

- (1) 22 cm
- (2) 36 cm
- (3) 44 cm
- (4) 58 cm



9. In the figure, BCDE is a square and BEF is an equilateral triangle. Find  $\angle BFC$ .

- (1)  $15^\circ$
- (2)  $30^\circ$
- (3)  $45^\circ$
- (4)  $60^\circ$

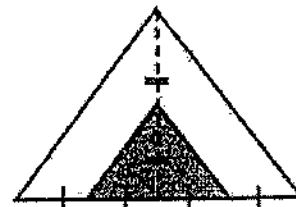


10. The mass of Box A is 6 kg. The total mass of Box B and Box C is also 6 kg. What is the average mass of the 3 boxes?

- (1) 6 kg
- (2) 2 kg
- (3) 3 kg
- (4) 4 kg

11. What percentage of the triangle is unshaded?

- (1) 25%
- (2) 40%
- (3) 50%
- (4) 75%





12. A small square is placed over a large square. The length of each square is a whole number. The area of the large square that is not covered by the small square is  $56 \text{ cm}^2$ . What is the perimeter of the large square?

- (1) 44 cm
- (2) 40 cm
- (3) 36 cm
- (4) 20 cm



13. A wire is cut into 2 pieces. One piece is made into an equilateral triangle of sides  $y$  cm long. The other piece is made into a square of sides 8 cm long. What is the length of the wire before it is cut?

- (1)  $(y + 8)$  cm
- (2)  $(3y + 64)$  cm
- (3)  $(3y + 32)$  cm
- (4)  $(4y + 24)$  cm

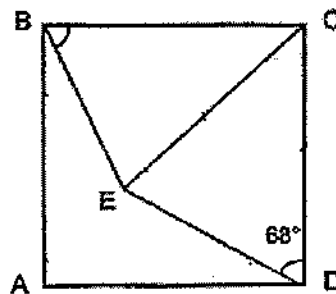
14. A supermarket gave a discount of \$3 for every \$40 spent. Mr Lim bought some groceries and paid \$119. What was the price of the groceries before the discount?

- (1) \$125
- (2) \$128
- (3) \$141
- (4) \$156



15. In the figure, ABCD is a square, CE = CD and  $\angle EDC = 68^\circ$ .  
Find  $\angle CBE$ .

- (1)  $44^\circ$
- (2)  $46^\circ$
- (3)  $67^\circ$
- (4)  $68^\circ$



---

**End of Booklet A**  
**Go on to Booklet B**





## **2020 PRIMARY 6 – PRELIMINARY EXAMINATION**

Name: \_\_\_\_\_ (    ) Date: 20 August 2020

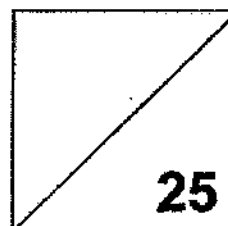
Class: Primary 6 (    )

Time: 8.00 a.m. - 9.00 a.m.

Parent's Signature: \_\_\_\_\_

**Paper 1 comprises 2 booklets, A and B.**

### **MATHEMATICS PAPER 1 (BOOKLET B)**



#### **INSTRUCTIONS TO CANDIDATES**

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 20 carry 1 mark each. Write your answers in the spaces provided.  
For questions which require units, give your answers in the units stated. (5 marks)

---

16. Find the value of  $40.04 + 8$ .

Ans: \_\_\_\_\_

---

17. Janet completed a race in 148 seconds.  
She was 15 seconds slower than Stella.  
How long did Stella take to complete the race?

Ans: \_\_\_\_\_ min \_\_\_\_\_ s

---

18. The table below shows the charges for a cleaning service.

First 2 hours	\$100
Every additional hour	\$30

Mdm Lee paid the shop \$160 to clean her house.  
How many hours of cleaning did she pay for?

Ans: \_\_\_\_\_ h

---

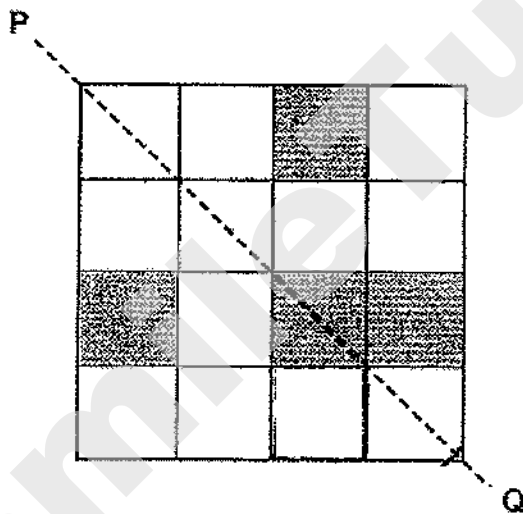


10. Express 0.5% as a fraction in the simplest form.

Ans: \_\_\_\_\_

---

20. In the figure, PQ is the line of symmetry.  
Shade a unit square to make the figure symmetrical.





Questions 21 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. (20 marks)

---

21. Alan is less than 50 years old. His age is a multiple of 5.  
Next year, his age is a multiple of 7. How old is he now?

Ans: \_\_\_\_\_ years old

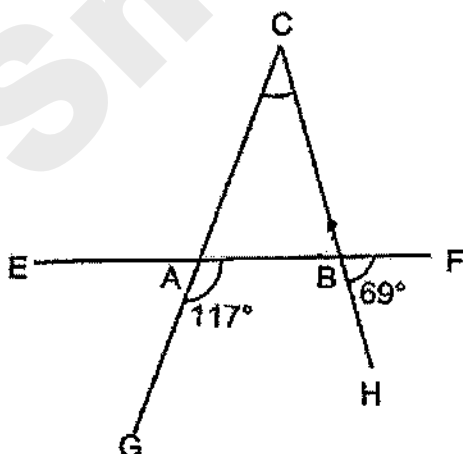
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22. At a party, there were 25% more men than women. There were 180 adults at the party. How many men were there?

Ans: \_\_\_\_\_

---

23. The figure below is not drawn to scale. EF, CG and CH are straight lines.  $\angle GAB$  is  $117^\circ$  and  $\angle FBH$  is  $69^\circ$ . Find  $\angle ACB$ .



Ans: \_\_\_\_\_°

---



24. Sally had 2 boxes of beads. After transferring  $\frac{1}{7}$  of the beads from Box A to Box B, the ratio of the number of beads in Box A to the number of beads in Box B becomes 3 : 7. What is the ratio of the number of beads in Box A to the number of beads in Box B at first?

Ans: \_\_\_\_\_

---

25. 4 people can sit at a square table, one at each side of the table. 6 people can sit at two square tables joined together. How many tables are needed to form a long table for 50 people?

Ans: \_\_\_\_\_

---

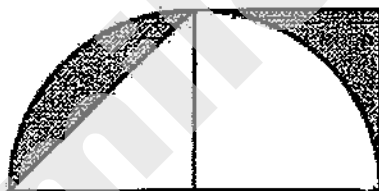


26. Alan spent  $\frac{1}{3}$  of his pocket money on a shirt and 15% of the remainder on a book. What fraction of his allowance did he spend in all?

Ans: \_\_\_\_\_

---

27. The figure is made up of a square and a semicircle.  
Find the shaded area.

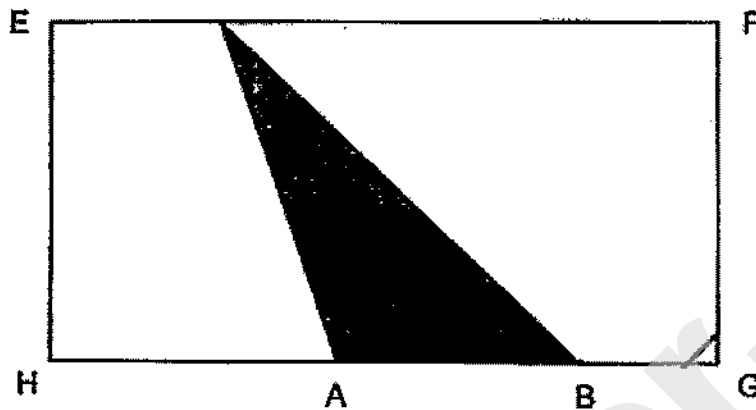


Ans: \_\_\_\_\_ cm<sup>2</sup>

---



30. The length of HG is thrice the length of AB.  
The shaded triangle is  $13 \text{ cm}^2$ . Find the area of Rectangle EFGH.



Ans: \_\_\_\_\_  $\text{cm}^2$

---

End of Booklet B  
End of Paper 1





## **2020 PRIMARY 6 – PRELIMINARY EXAMINATION**

Name: \_\_\_\_\_ (

Date: 20 August 2020

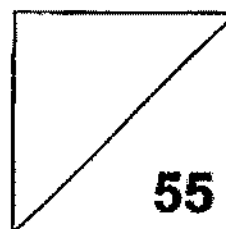
Class: Primary 6 ( )

Time: 10.30 a.m. - 12.00 noon

Parent's Signature: \_\_\_\_\_

### **MATHEMATICS**

### **PAPER 2**



#### **INSTRUCTIONS TO CANDIDATES**

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. What is the missing number in the box?

$$140 \div 20 \times \boxed{\phantom{00}} + (180 - 120) = 270.$$

Ans: \_\_\_\_\_

---

2.  $\frac{3}{5}$  of Lily's savings is equal to  $\frac{7}{12}$  of Janet's savings.

What is the ratio of Janet's savings to Lily's savings?

Ans: \_\_\_\_\_

---

3. At first, Aaron and Ben were facing the same direction. Aaron then turned  $225^\circ$  clockwise to face North-West while Ben turned  $90^\circ$  clockwise.

What direction did Ben face in the end?

Ans: \_\_\_\_\_

---

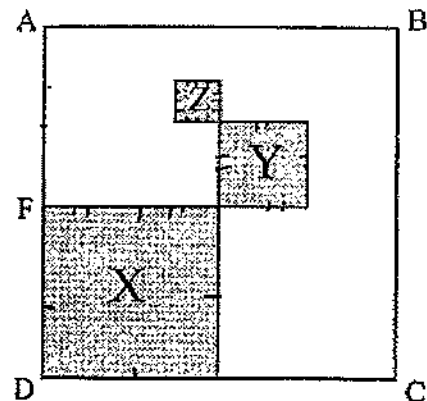


4. Alice is  $5v$  years old. Beatty is 18 years younger than Cally,  
Alice is  $2v$  years older than Beatty.  
Find, in terms of  $v$ , the total age of the 3 children in 2 years' time.

Ans: \_\_\_\_\_ years old

---

5. X, Y and Z are squares in the big square, ABCD.  $AF = FD$ .  
The length of Y is half the length of X. The length of Y is twice the length of Z.  
What fraction of the figure is shaded?



Ans: \_\_\_\_\_

---



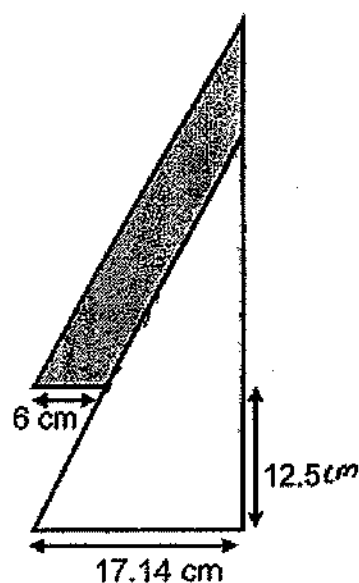
For questions 6 to 17, show your working clearly in the space provided for each question and write your answers in the spaces provided.  
The number of marks available is shown in brackets [ ] at the end of each question or part-question. (45 marks)

6. The length of AE is 3.3 m. B is the midpoint of AC. C is the midpoint of BD and D is the midpoint of BE. What is the length of DE in centimetres?



Ans: \_\_\_\_\_ [3]

7. The figure below shows two identical right-angled triangles overlapping each other. Find the shaded area.



Ans: \_\_\_\_\_ [3]



8. Denise bought 9 more 26-cent stickers than 32-cent stickers from an online shopping website. She spent a total of \$12.78 on these stickers.  
How many 26-cent stickers did Denise buy?

Ans: \_\_\_\_\_ [3]

---

9. Mrs Lee went to a sale and paid a total of \$600 for a watch and a necklace. The watch was sold to her at a 20% discount. The total discount given for these 2 items was \$140. Mrs Lee paid \$120 more for the necklace than the watch. What was the original price of the necklace?

Ans: \_\_\_\_\_ [3]

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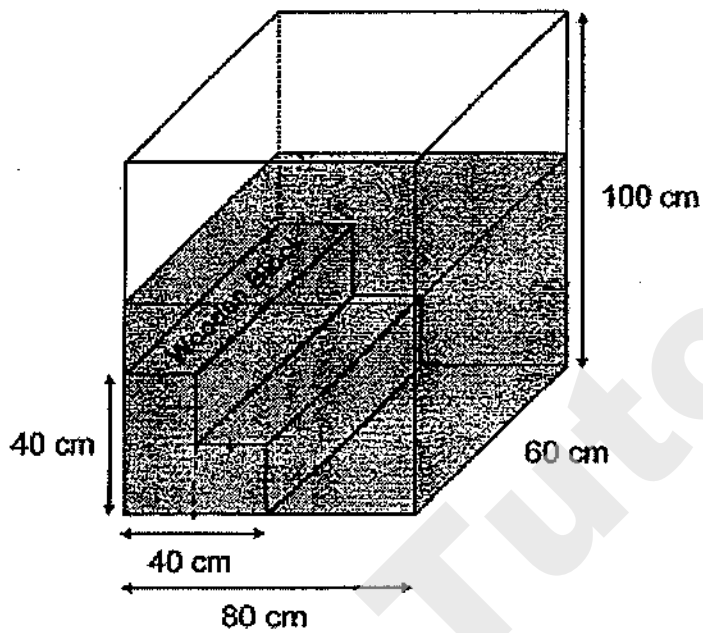
- 10 Frank had to make 200 toy cars. He made 8 toy cars each day from Monday to Friday and 15 each day on Saturday and Sunday. Starting on a Thursday, on which day of the week did Frank complete making all the toy cars?

Ans: \_\_\_\_\_ [3]

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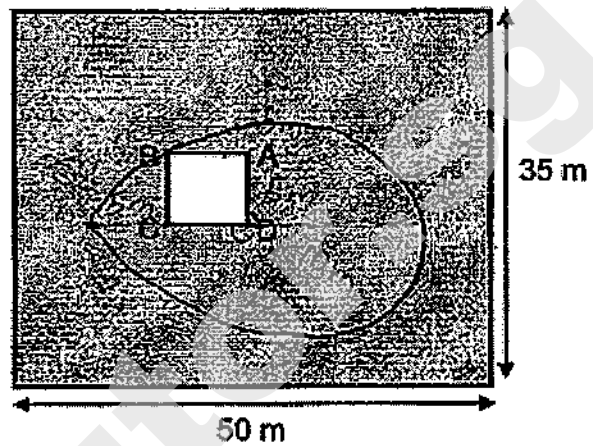
11. The figure shows a rectangular aquarium. with no matter at first  
It is ~~to be~~ <sup>then</sup> filled with water up to  $\frac{3}{5}$  its height.  
How many *litres* of water is needed?



Ans: \_\_\_\_\_ [4]



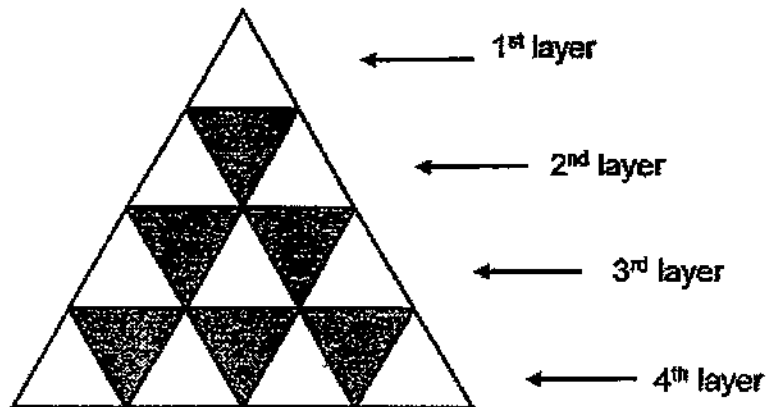
- 12 ABCD is a 5 m by 5 m square house built in a field.  
The field is 50 m long and 35 m wide. A dog is tied to Corner D of this house  
with a rope of length 10 m long.  
Find the maximum area in the field that this dog can move within.  
(Take  $\pi = 3.14$ )



Ans: \_\_\_\_\_ [4]



13. The figure is made up of identical triangles.



Study the above pattern carefully.

- (a) How many triangles are there in the 10<sup>th</sup> layer ?
- (b) How many shaded triangles are there in the 100<sup>th</sup> layer ?
- (c) In which layer will you find 109 triangles ?

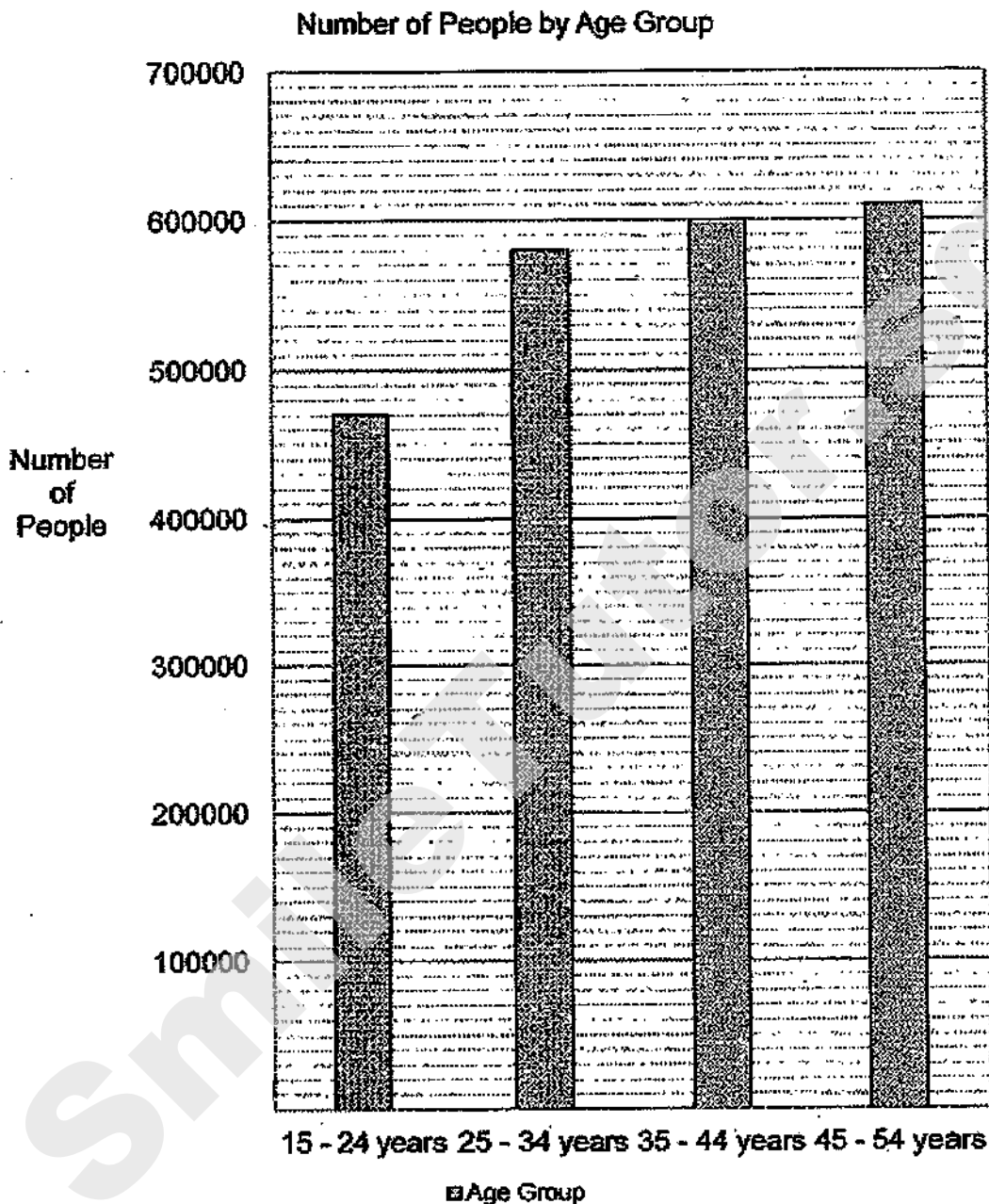
Ans (a) \_\_\_\_\_ [1]

(b) \_\_\_\_\_ [1]

(c) \_\_\_\_\_ layer [2]



14. The bar graph shows the number of people in the different age groups.



The table below shows the percentage of people in the different age groups who are online food delivery users.

Age Group	15 – 24 years	25 – 34 years	35 – 44 years	45 – 54 years
Percentage of online food delivery users	18	31	26	17



- (a) Which age group has the most number of people?
- (b) Which age group has the least number of online food delivery users?
- (c) The amount of money spent by online food delivery users aged 15 to 24 years old is \$115 000 000. What is the average amount of money spent by each of the users in this age group?  
*Give your answer to the nearest whole number.*

Ans: (a) \_\_\_\_ to \_\_\_\_ years old [1] ✓

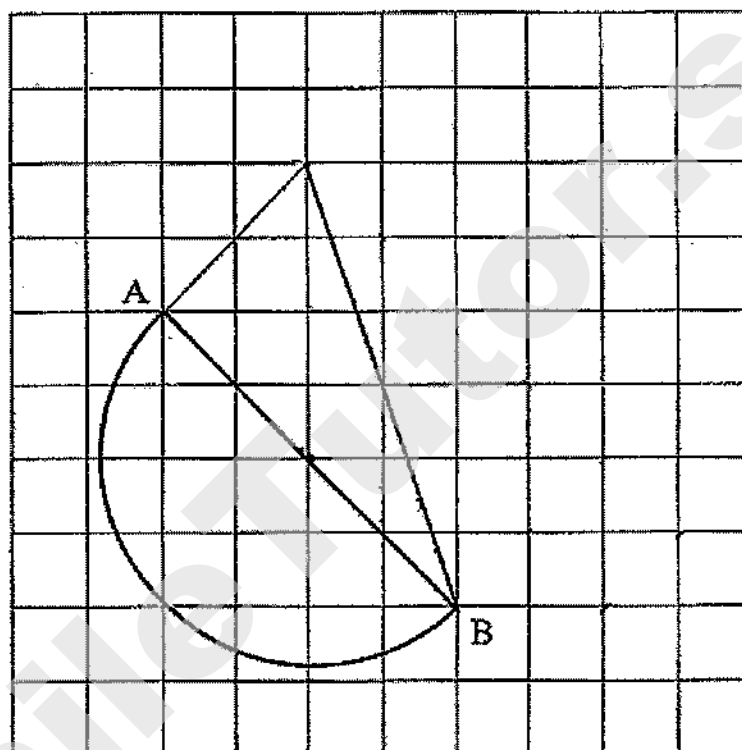
(b) \_\_\_\_ to \_\_\_\_ years old [1] ✓

(c) \_\_\_\_\_ [2] 0

---



15. A semicircle is drawn on a square grid.
- Measure and write down the length of the radius of the semicircle.
  - Draw a rectangle ABCD such that the length of BC is equal to the length of the radius.
  - Join BD and measure  $\angle ABD$



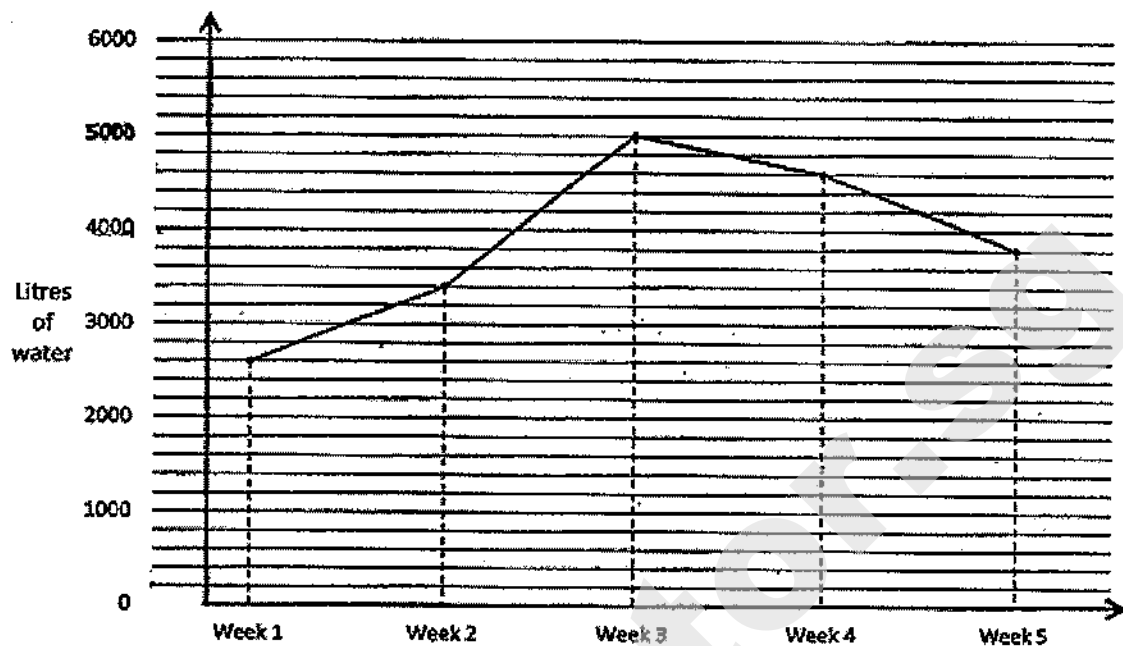
Ans: (a) Radius = \_\_\_\_\_ [1]

(b) Drawing of Rectangle ABCD [2]

(c)  $\angle ABD =$  \_\_\_\_\_ [1]



16. Mr and Mrs Tan lived with their four children in a 5-room flat. The line graph showed the total water usage each week for Mr Tan's family.



- (a) There was a sharp increase in water usage from Week \_\_\_\_ to Week \_\_\_\_.
- (b) Find the average water usage for each week.

- (c) Each statement below is either true, false or not possible to tell from the information given. For each statement, put a tick (✓) in the correct column. [2 marks]

	True	False	Not Possible to Tell
(i) The average water usage for each member in a week was 700 litres.			
(ii) The reason that the water usage increased from Week 1 to Week 2 was due to a leak in the water pipe.			

Ans : (a) Week \_\_\_\_ to Week \_\_\_\_ [1]

(b) \_\_\_\_\_ [2]

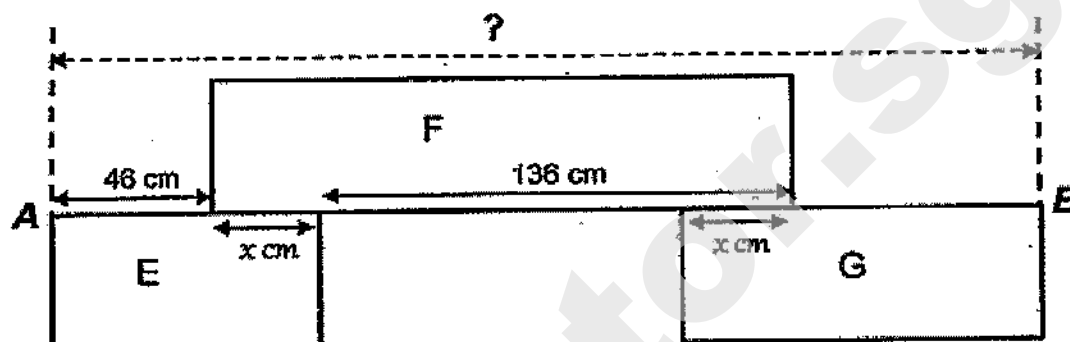


17. The figure below is made up of 3 different rectangles with identical breadth.

The length of Rectangle E is  $\frac{5}{11}$  the length of Rectangle F.

The length of Rectangle G is  $\frac{1}{2}$  of the total length of Rectangle E and Rectangle F.

Find the length AB of the figure.



Ans: \_\_\_\_\_ [5]

End of Paper 2



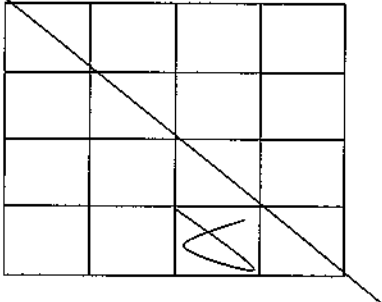
SCHOOL : TAO NAN PRIMARY SCHOOL  
 LEVEL : PRIMARY 6  
 SUBJECT : MATH  
 TERM : 2020 PRELIM

**PAPER 1 BOOKLET A**

Q 1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
1	3	2	2	3	3	2	2	1	4

Q 11	Q12	Q13	Q14	Q15
4	3	3	2	3

**PAPER 1 BOOKLET B**

Q16)	5.005
Q17)	$148 - 15 = 133$ $133s = 2 \text{ min } 13s$
Q18)	$160 - 100 = 60$
Q19)	$\frac{1}{200}$
Q20)	
Q21)	20 years old



Q22)	100
Q23)	$48^\circ$
Q24)	7 : 13
Q25)	$50 - 2 = 48$ $48 \div 2 = 24$
Q26)	$\frac{13}{30}$
Q27)	2 cm <sup>2</sup>
Q28)	Missing page
Q29)	Missing page
Q30)	78cm <sup>2</sup>

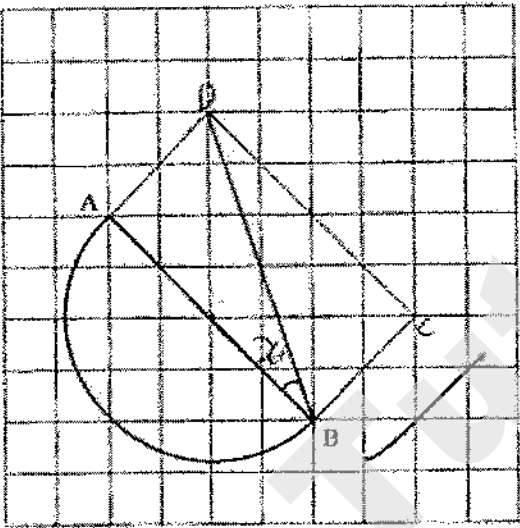
## PAPER 2

Q1)	$270 - 60 = 210$ $210 \div 7 = 30$
Q2)	36 : 35
Q3)	South
Q4)	$2 \times 3 = 6$ $5u - 2u = 3u$ $3u + 18 + 5u + 3u + 6 = (11u + 24)$
Q5)	4units x 2 = 8 units 8 units x 8 units = 64 units <sup>2</sup> 1 unit x 1 unit = 1units <sup>2</sup> 2 units x 2 units = 4 units <sup>2</sup> 4 units x 4units = 16 units <sup>2</sup> $1 \text{ units}^2 + 1 \text{ units}^2 + 16 \text{ units}^2 = 21 \text{ units}^2$ $\frac{21 \text{ units}^2}{64 \text{ units}^2} = \frac{21}{64}$
Q6)	1 unit x 3 + 2 units = 5 units 3.3m = 330cm $330 \div 5 = 66$ $66 \times 2 = 132\text{cm}$
Q7)	$11.14 \times 12.5 = 139.25$ $\frac{1}{2} \times 6 \times 12.5 = 37.5$ $37.5 + 139.25 = 176.75\text{cm}^2$



Q8)	$9 \times 26 = 234$ $1278 - 234 = 1044$ $26 + 32 = 58$ $1044 \div 58 = 18$ $18 + 9 = 27$
Q9)	$(600 - 120) \div 2 = 240$ $240 \div 80 = 3$ $3 \times 100 = 300$ $300 - 240 = 60$ $140 - 60 = 80$ $240 + 120 = 360$ $360 + 80 = \$440$
Q10)	Tuesday
Q11)	$40 \div 2 = 20$ $3 \times 20 \times 20 \times 60 = 72000$ $\frac{3}{5} \times 100 = 60$ $60 \times 60 \times 80 = 288000$ $288000 - 72000 = 216000$ $216000 \text{cm}^3 = 216000 \text{ml}$ $216000 \text{ml} = 216 \text{L}$
Q12)	$\frac{3}{4} \times \text{big circle} + \frac{1}{2} \times \text{small circle}$ $= \frac{3}{4} \times 3.14 \times 10\text{m} \times 10\text{m} + \frac{1}{2} \times 3.14 \times 5\text{m} \times 5\text{m}$ $= 274.75 \text{m}^2$
Q13)	a)19 b)99 c) $(109 - 1) \div 2 = 54$ $54 + 1 = 55$
Q14)	a)45 to 54 b)15 to 24 c) $100\% \rightarrow 47000$ $1\% \rightarrow 47000 \div 100 = 470$ $18\% \rightarrow 470 \times 18 = 8460 \text{ (deverily)}$ $\$11500000 \div 8400 \approx \$13593.381$ $\approx \$13593$



Q15)	<p>a) 2.9cm</p> <p>b)</p>  <p>c) 26°</p>
Q16)	<p>a) 2 to 3 week</p> <p>b) <math>2600 + 3400 + 3800 + 4600 + 5000 = 19400</math>  <math>19400 \div 5 = 3880</math></p>
Q17)	<p>11 units – 5 units = 6 units          6 units = <math>136 - 46 = 90</math>          1 unit = <math>90 \div 6 = 15</math>          11 units = <math>15 \times 11 = 165</math>  <math>165 + 46 = 211</math>  <math>165 - 136 = 29</math>  <math>165 + 29 + 46 = 240</math>  <math>240 \div 2 = 120</math>  <math>120 - 29 = 91</math>  <math>46 + 29 + 136 + 91 = 302\text{cm}</math></p>





**Temasek Primary School**  
**PSLE Preliminary Examination**  
**Primary Six Standard**  
**2020**  
**MATHEMATICS**  
**(PAPER 1 BOOKLET A)**

Name: \_\_\_\_\_ (    ) Class: 6 (    )

Date: 21 August 2020

Total Time for Booklets A and B: 1 hour

**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.
4. Shade your answers in the Optical Answer Sheet (OAS) provided.
5. The use of calculator is **NOT** allowed.
6. This booklet consists of 8 printed pages.



SmileTutor.sg



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) and shade your answer on the Optical Answer Sheet.  
(20 marks)

---

1 In 8 090 320, the digit 9 is in the \_\_\_\_\_ place.

- (1) thousands
- (2) ten thousands
- (3) hundred thousands
- (4) millions

2 What is the capacity of a can of Coca-Cola?

- (1) 3.5  $\ell$
- (2) 35  $\ell$
- (3) 35  $ml$
- (4) 350  $ml$

3 Simplify  $15w - 2 - w + 10$ .

- (1)  $14w + 8$
  - (2)  $14w - 12$
  - (3)  $16w + 8$
  - (4)  $16w - 12$
-



- 4 Find the total mass of the two packets of flour as shown below.



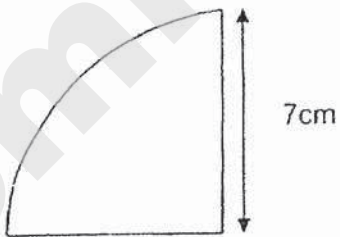
$\frac{2}{5}$  kg



$\frac{3}{8}$  kg

- (1)  $\frac{1}{40}$  kg
- (2)  $\frac{5}{13}$  kg
- (3)  $\frac{6}{40}$  kg
- (4)  $\frac{31}{40}$  kg

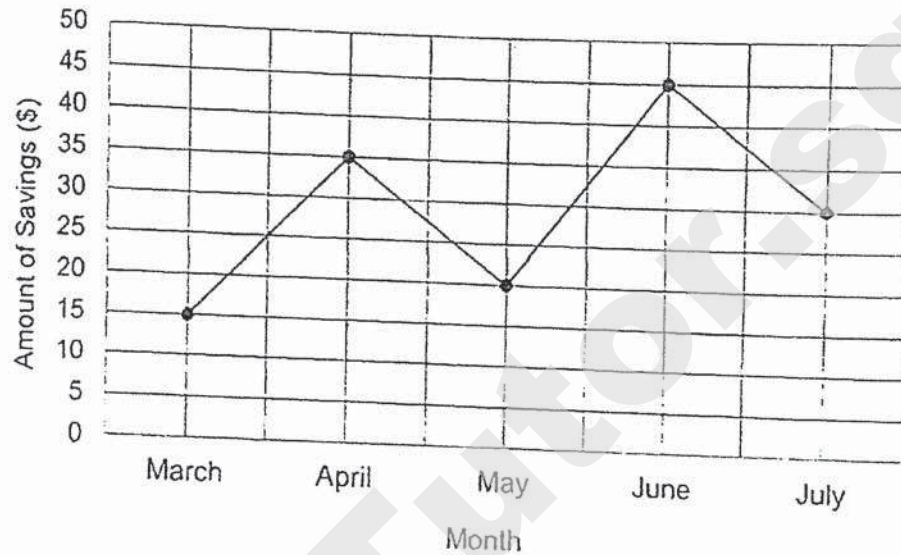
- 5 Find the perimeter of the quarter circle. (Take  $\pi = \frac{22}{7}$ )



- (1) 11 cm
- (2) 25 cm
- (3) 44 cm
- (4) 58 cm



- 6 The line graph shows David's monthly savings from March to July.



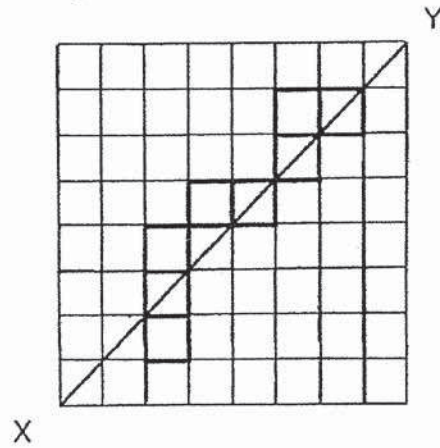
How many month(s) did David save at least \$30?

- (1) 1
  - (2) 2
  - (3) 3
  - (4) 4
- 7 In a group of 40 students, 28 are boys. What percentage of the students are girls?

- (1) 12%
- (2) 28%
- (3) 30%
- (4) 70%

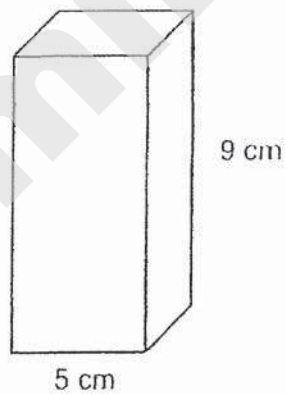


- 8 What is the minimum number of squares that must be added so that the line XY becomes a line of symmetry?



- (1) 1  
(2) 2  
(3) 3  
(4) 4

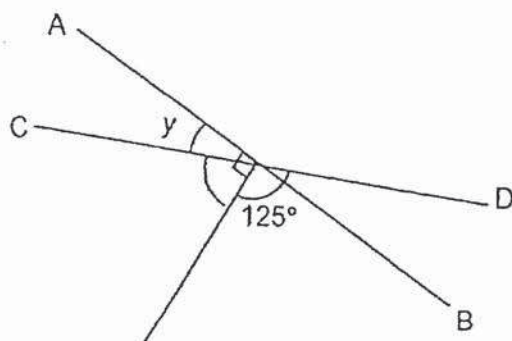
- 9 A rectangular container has a square base of side 5 cm and a height of 9 cm. What is the capacity of the container?



- (1)  $19 \text{ cm}^3$   
(2)  $45 \text{ cm}^3$   
(3)  $225 \text{ cm}^3$   
(4)  $405 \text{ cm}^3$

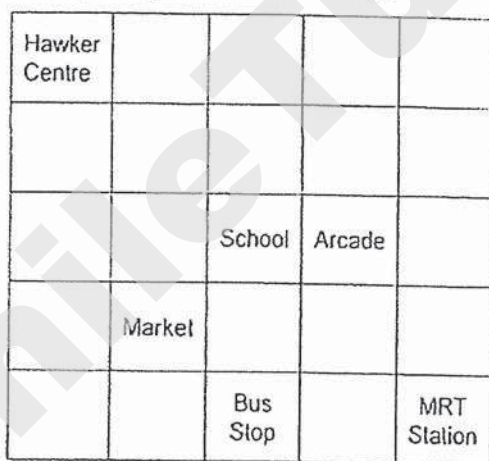


- 10 In the figure below, AB and CD are straight lines. Find  $\angle y$ .



- (1)  $25^\circ$
- (2)  $35^\circ$
- (3)  $45^\circ$
- (4)  $55^\circ$

- 11 Look at the square grid below carefully.



at facing north

Ali is standing facing the school. He turns  $90^\circ$  in the clockwise direction. Then he turns  $225^\circ$  in the anticlockwise direction. Where is he facing now?

- (1) Arcade
- (2) Market
- (3) MRT Station
- (4) Hawker Centre



- 12 The table shows Adam's result slip with the scores for four subjects. He accidentally spilled some ink on it and his Mathematics and Science scores cannot be seen completely.

Subject	Score
English	99
Malay	70
Mathematics	9 <del>9</del>
Science	8 <del>4</del>

The difference between his Mathematics and Science scores is the smallest possible value. Find his average score for Malay and Mathematics.

- (1) 80  
 (2) 85  
 (3) 89  
 (4) 90
- 13 Amanda folded a rectangular piece of paper into halves as shown in Figure 1. A crease was formed at the folded part. Next, she folded the same piece of paper into halves again as shown in Figure 2. Three creases were formed at the folded parts.

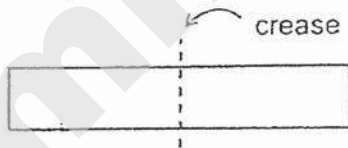


Figure 1

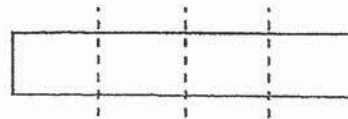


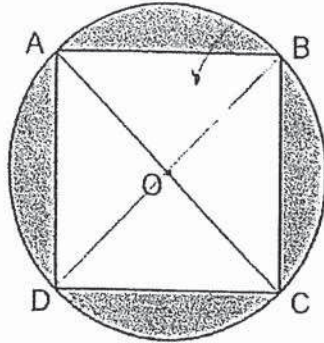
Figure 2

How many creases were there on the same piece of paper after she folded it for 5 times?

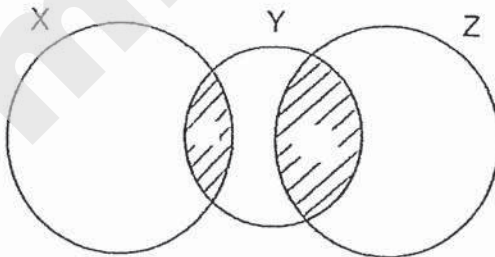
- (1) 9  
 (2) 15  
 (3) 31  
 (4) 32



- 14 The figure shows a square ABCD in a circle. O is the centre of the circle with a diameter of 20 cm. Find the shaded area. Leave your answer in terms of  $\pi$ .



- (1)  $(100\pi - 100) \text{ cm}^2$   
 (2)  $(100\pi - 200) \text{ cm}^2$   
 (3)  $(400\pi - 200) \text{ cm}^2$   
 (4)  $(400\pi - 400) \text{ cm}^2$
- 15 The figure shows 2 identical circles, X and Z, and a smaller circle Y.  $\frac{1}{6}$  of Circle X and  $\frac{3}{5}$  of Circle Y are shaded. Find the ratio of the area of the shaded parts to the total area of the figure.



- (1) 3 : 14  
 (2) 4 : 14  
 (3) 3 : 17  
 (4) 4 : 17

End of Booklet A

Go to Booklet B



**2020**  
**MATHEMATICS**  
**(PAPER 1 BOOKLET B)**

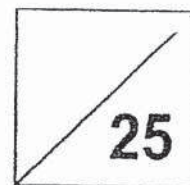
Name: \_\_\_\_\_ (   ) Class: 6 (   )

Date: 21 August 2020

Total Time for Booklets A and B: 1 hour

**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.
4. Write your answers in this booklet.
5. The use of calculator is **NOT** allowed.
6. This booklet consists of 9 printed pages.





Questions 16 to 20 carry 1 mark. Write your answers in the spaces provided.  
For questions which require units, give your answers in the units stated. (5 marks)

---

16 What is the value of  $40 - (28 - 10) \div 2 \times 3$ ?

Ans: \_\_\_\_\_

---

17 Find the value of  $30.2 \div 5$ .

Ans: \_\_\_\_\_

---

18 Arrange the following fractions from the smallest to the largest:

$$\frac{4}{3}, 1\frac{1}{6}, \frac{5}{4}$$

Ans: \_\_\_\_\_

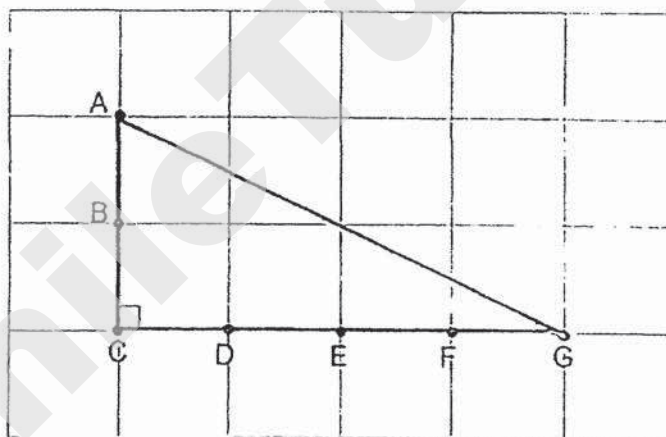
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- 19 Express 100 g as a ratio of 0.6 kg. Leave your answer in the simplest form.

Ans: \_\_\_\_\_

- 20 In the square grid shown below, there is a right-angled triangle. Divide the triangle into two parts, each with the same area, by joining two points (A, B, C, D, E, F or G) together.



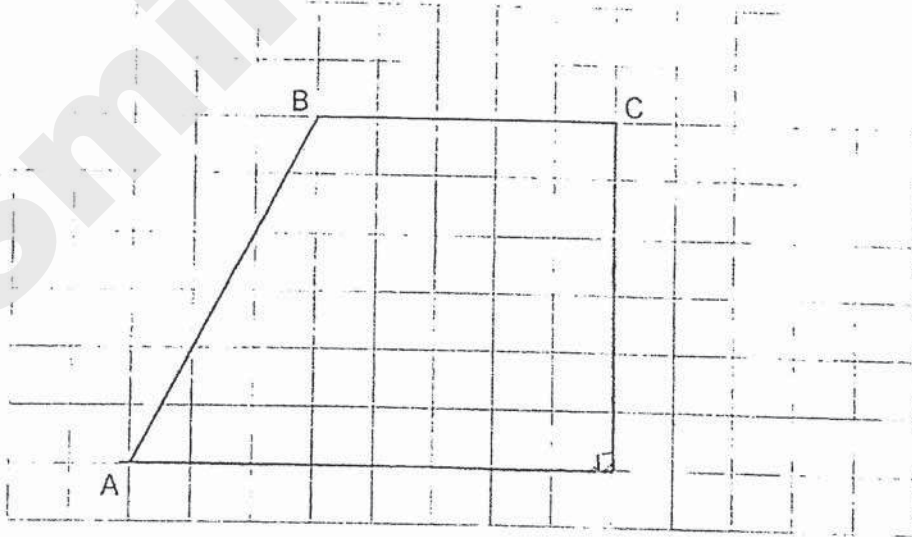


Questions 21 to 30 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (20 marks)

- 21 A photocopier can print 300 pages in 4 minutes.  
How many pages can it print in 10 minutes?

Ans: \_\_\_\_\_

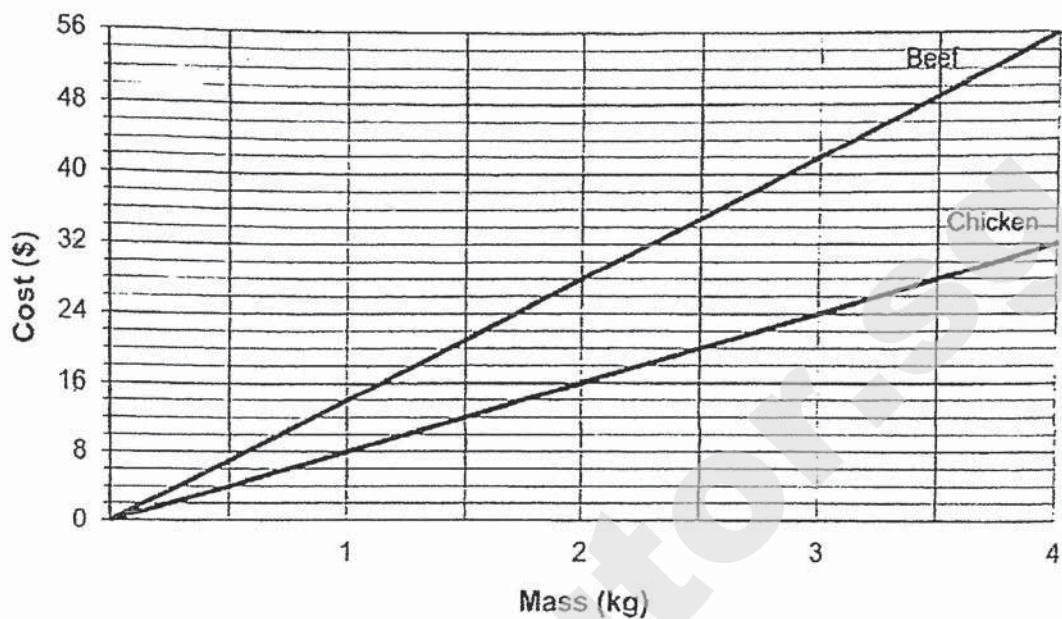
- 22 In the square grid below, AB and BC are two sides of a trapezium ABCD.  
(a) Measure  $\angle ABC$ .  
(b) Given that  $\angle CDA = 90^\circ$ , complete the drawing of trapezium ABCD.



Ans: (a) \_\_\_\_\_°



- 23 The line graph shows the cost of chicken and beef sold at a supermarket.



Lena had just enough money to buy 2 kg of beef. If she decides to buy chicken instead of beef, how much chicken can she buy?

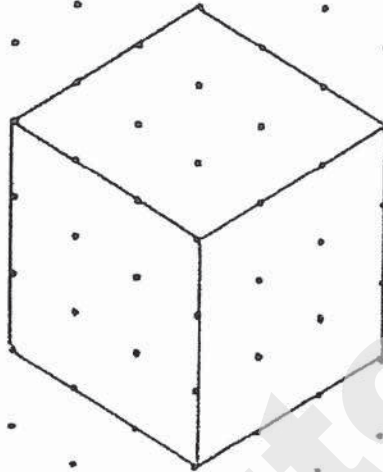
Ans: \_\_\_\_\_ kg

- 24 40% of the people who watched a musical were children. The rest were men and women in the ratio 1 : 3. There were 100 fewer men than children. How many people watched the musical?

Ans: \_\_\_\_\_



- 25 On the isometric grid, draw a cuboid that has the same volume as the cube shown below.

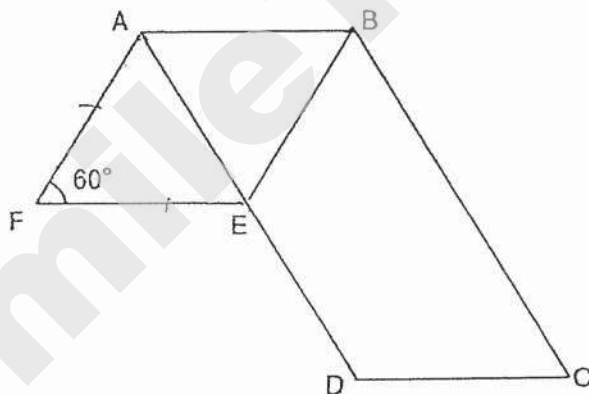




- 26 Durians are sold at \$30 per kg. Charlotte bought some durians. She gave the durian seller two \$50 notes and received \$4 change. How many kilograms of durian did Charlotte buy?

Ans: \_\_\_\_\_ kg

- 27 In the figure below, ABCD is a parallelogram and ABEF is a rhombus.



Each of the statements below is either true, false or not possible to tell from the information given. For each statement, put a tick (✓) to indicate your answer.

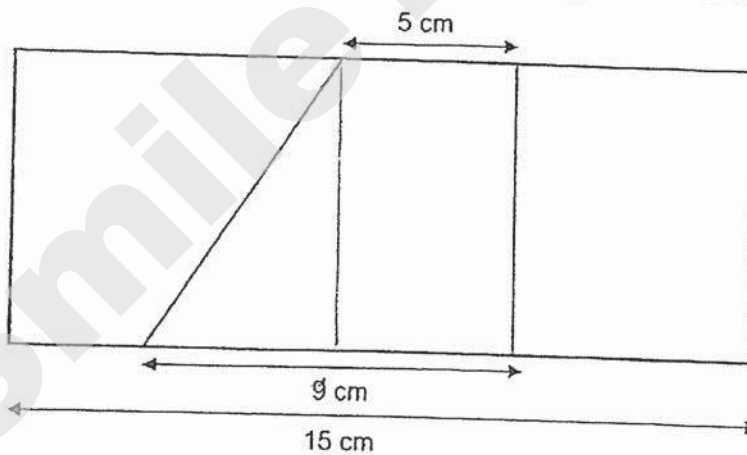
Statement	True	False	Not possible to tell
$\angle EBC = \angle BCD$			
$\angle BED = 102^\circ$			
ABE is an equilateral triangle.			



- 28 Henry had a total of 49 \$2 notes and \$10 notes. When he exchanged all his \$2 notes for \$10 notes, he had 25 notes. How many \$10 notes did he have at first?

Ans: \_\_\_\_\_

- 29 What fraction of the rectangle is shaded? Give your answer in the simplest form.



Ans: \_\_\_\_\_



- 30 The ratio of the number of motorcycles to the number of cars at a car park was 4 : 7. The ratio of the number of lorries to the number of vans at the same car park was 4 : 5. There were twice as many cars as vans. Find the ratio of the number of cars to the number of lorries to the number of vans. Give your answer in the simplest form.

Ans: \_\_\_\_\_

End of Paper





**Temasek Primary School**  
**PSLE Preliminary Examination**  
**Primary Six Standard**  
**2020**  
**MATHEMATICS**  
**(PAPER 2)**

Name: \_\_\_\_\_ (    ) Class: 6 (    )

Date: 21 August 2020

Total Time: 1 hour 30 minutes

**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.
4. Write your answers in this booklet.
5. The use of a calculator is allowed.
6. This booklet consists of 15 printed pages.

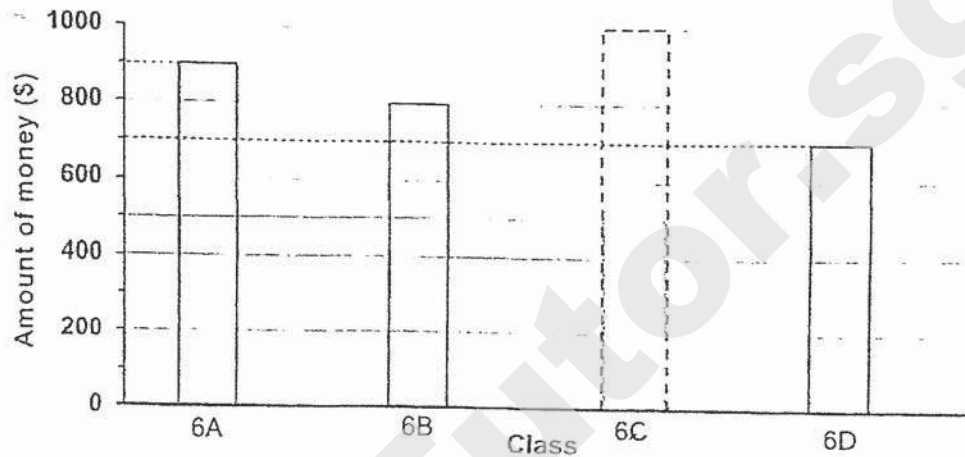
Paper	Max Mark	Score
Paper 1 Booklet A	20	
Paper 1 Booklet B	25	
Paper 2	55	
Total Mark	100	

Parent's Signature/Date: \_\_\_\_\_



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 bar graph shows the amount of money collected by 4 classes for charity.



The average amount of money collected by the 4 classes was \$725.

Complete the bar graph above to show the amount collected by Class 6C.

- 2 Joseph has a piece of rectangular paper as shown in Figure 1. He cuts it into 3 identical small rectangles to form a new rectangle as shown in Figure 2. What is the perimeter of the new rectangle? Give your answer in terms of  $g$ .

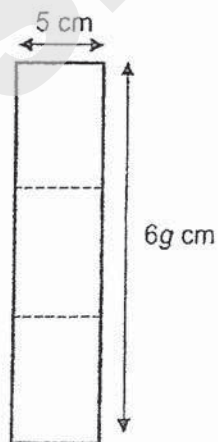


Figure 1

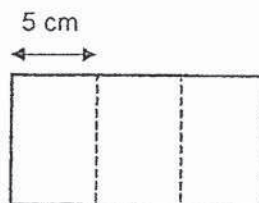
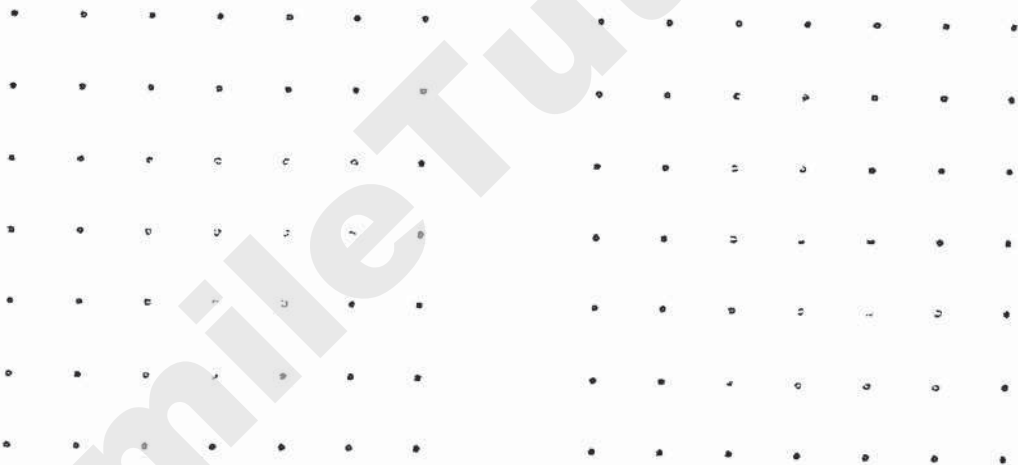
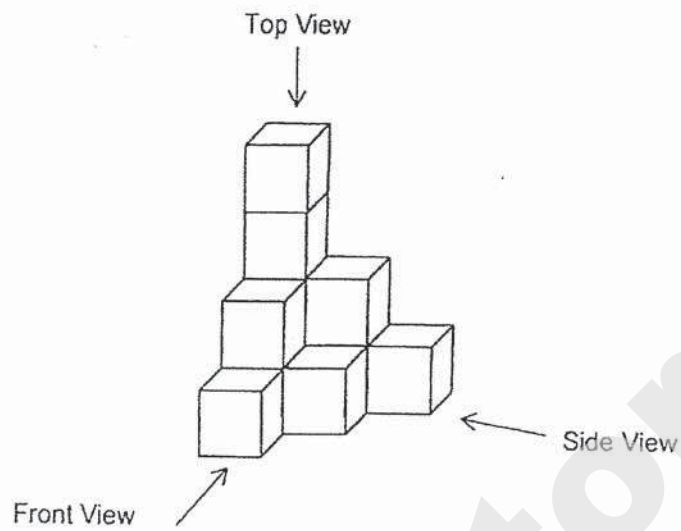


Figure 2

Ans: \_\_\_\_\_ cm



- 3 Draw the top view and front view of the solid on the grid below.

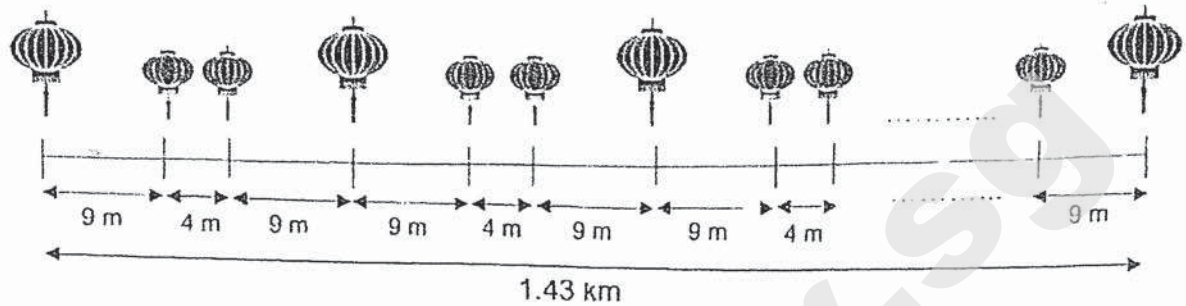


Top View

Front View



- 4 During Chinese New Year, big and small lanterns were hung along Chinatown Road following a pattern as shown below.

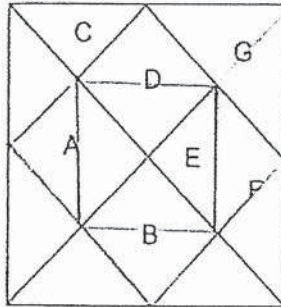


How many big lanterns were hung altogether?

Ans: \_\_\_\_\_



- 5 The figure shows a square made up of 7 tiles, A, B, C, D, E, F and G.



- (a) Tile F and another tile when added together give an area that is a quarter of the area of the square. Which is the other tile?
- (b) If the area of tile E is  $4 \text{ cm}^2$ , find the area of the square.

Ans: (a) \_\_\_\_\_ [1]

(b) \_\_\_\_\_ [1]



For questions 6 to 17, 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. (45 marks)

- 6 There were  $\frac{2}{9}$  as many cakes as buns at a bakery. After selling  $\frac{1}{3}$  of the buns, there were 68 more buns than cakes left.


- (a) How many cakes were there at the bakery at first?  
 (b) At the end of the day, the baker sold all the cakes at \$26 each. How much did he collect from selling all the cakes?

Ans: (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [1]

- 7 Valerie wants to buy some cupcakes for a party.

**Price of Cupcakes**



1 cupcake for \$2  
 1 box of 6 cupcakes for \$10  
 Buy 5 boxes of cupcakes, get one box for FREE!

- (a) What is the least amount of money she has to pay for 28 cupcakes?  
 (b) Valerie decides to buy 36 cupcakes instead of 28 cupcakes. What is the least additional amount of money that she must pay?

Ans: (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [1]



- 8 The table shows the hourly rates for booking badminton court at Raffles Sports Club.

	Member	Non-Member
Non-Peak Hours Weekdays: 7 a.m. to 6 p.m.	\$5 per hour	\$8 per hour
Peak Hours Weekdays: 6 p.m. to 10 p.m. Weekends & Public Holidays: 7 a.m. to 10 p.m.	\$8 per hour	\$12 per hour

- (a) Hong Hong booked a badminton court for 3 hours on National Day. She and her 3 friends are members of the Club and they shared the cost equally among themselves. How much did each of them pay?
- (b) How much more must each of them pay for the same booking if they were non-members of the Club?

Ans: (a) \_\_\_\_\_ [1]

(b) \_\_\_\_\_ [2]

- 9 A pencil costs  $y$  cents and a file costs 40 cents more than a pencil.

- (a) What is the cost of 2 identical files and 3 identical pencils in cents? Express your answer in terms of  $y$  in the simplest form.
- (b) Shernice wants to buy 2 such files and 3 such pencils but is short of 30 cents. If the pencil costs 90 cents, how much money does Shernice have?

Ans: (a) \_\_\_\_\_ [1]

(b) \_\_\_\_\_ [2]



- 10 The table shows the monthly usage charges for Mobile Phone Plan A and Plan B.

	Plan A	Plan B
Basic Charges	Nil	\$19.90
Incoming Calls	Unlimited	Unlimited
Outgoing Calls	Free 200 min 15 cents for every additional minute	Free 250 min 10 cents for every additional minute
Data	Free 20 GB \$10 for every additional 10 GB or part thereof	Free 30 GB \$8 for every additional 10 GB or part thereof

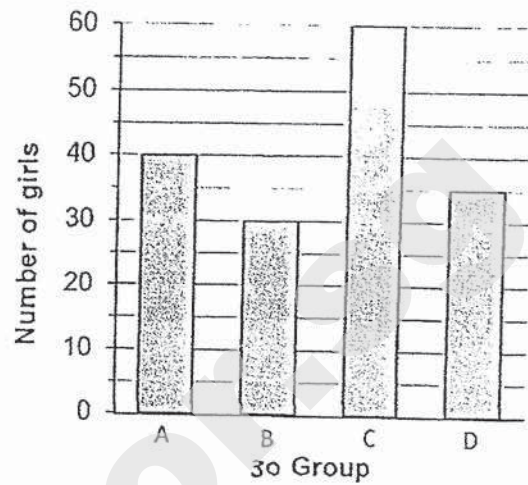
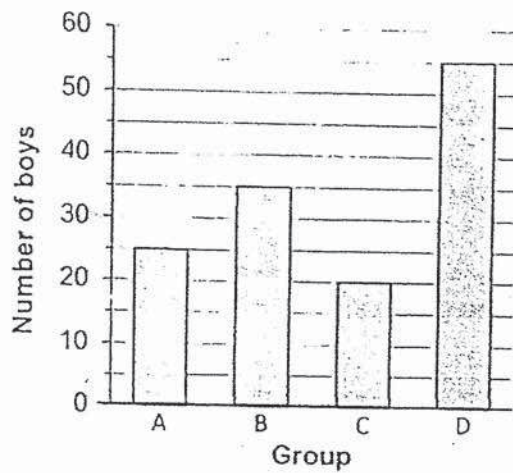
- (a) Claire subscribed to Mobile Phone Plan A. In July, she received 280 minutes of incoming calls and made 240 minutes of outgoing calls. She used 28 GB of data. How much did she pay for her mobile phone bill for July?
- (b) If Claire had subscribed to Plan B, how much more would she have to pay for her mobile phone bill for July?

Ans. (a) \_\_\_\_\_

(b) \_\_\_\_\_



- 11 The bar graphs show the number of boys and girls in Groups A, B, C and D.



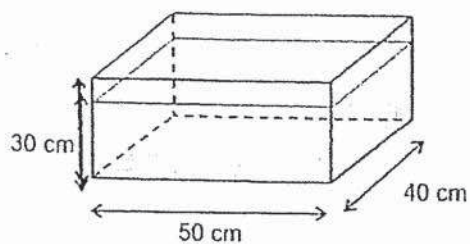
- (a) Which 2 groups have the same number of students?  
(b) What fraction of the total number of students were girls from Group B?  
Give your answer in the simplest form.

Ans: (a) \_\_\_\_\_ [1]

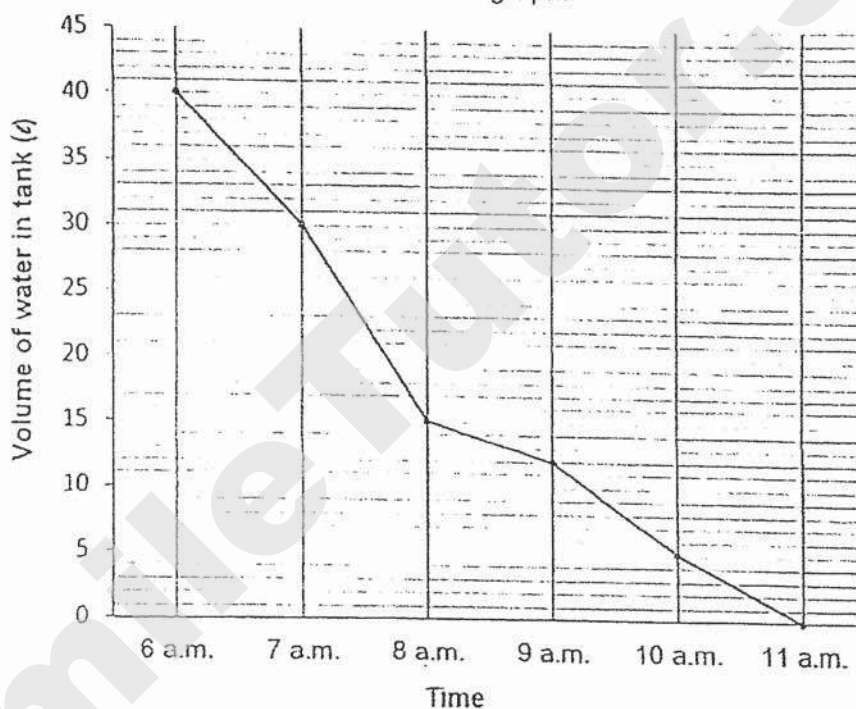
(b) \_\_\_\_\_ [2]



- 12 A rectangular tank measuring 50 cm by 40 cm by 30 cm was  $\frac{4}{5}$  filled with water at first.



Water was then poured out from the tank from 6 a.m. to 11 a.m. and the volume of water left in the tank is shown in the line graph.



- (a) What was the volume of water in the tank at first? Give your answer in litres.
- (b) At what time was  $\frac{1}{4}$  of the tank filled with water?

Ans: (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [2]



- 13 Mr Lee bought some stickers.  $\frac{3}{4}$  of them were star-shaped and the rest were heart-shaped. He pasted  $\frac{2}{5}$  of the star-shaped and  $\frac{1}{3}$  of the heart-shaped stickers onto his students' workbooks and was left with 111 stickers. How many stickers did he buy?



Ans: \_\_\_\_\_ [5]



- 14 John has a rectangular piece of paper ABCDEF as shown in Figure 1. He folds corner C such that it touches E as shown in Figure 2. Next, he folds BD such that B touches F as shown in Figure 3.

- (a) Find  $\angle d$ .  
 (b) Find  $\angle z$ .

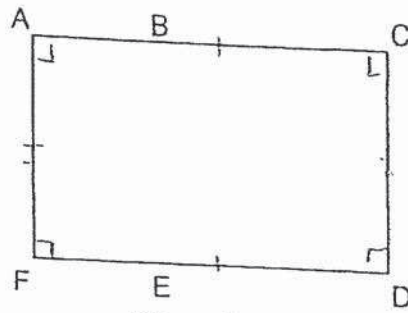


Figure 1

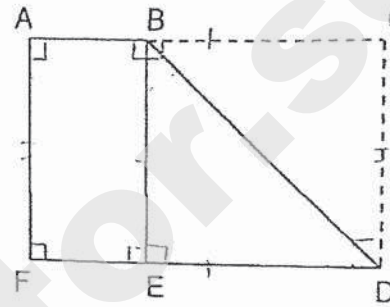


Figure 2

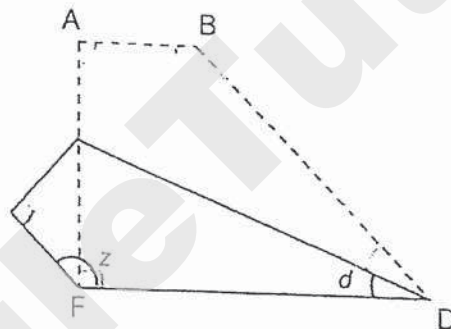


Figure 3

Ans: (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [2]



- 15 For every laptop that Danny sells, he earns a sum of money as stated below:



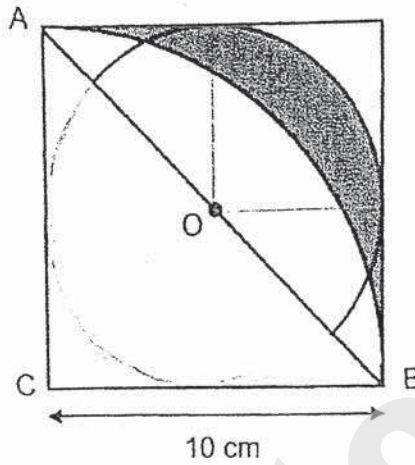
10% of the first \$800 of the selling price  
and  
5% of the remaining selling price

Danny sold a laptop and earned \$210. What was the selling price of the laptop?

Ans: \_\_\_\_\_ . [5]



- 16 The figure shows a square with a semicircle and a quarter circle ABC. O is the centre of the semicircle. The length of the square is 10 cm. (Take  $\pi = 3.14$ )



- (a) Find the area of the quarter circle ABC.  
(b) Find the area of the shaded part.

Ans: (a) \_\_\_\_\_ [1]

(b) \_\_\_\_\_ [3]



- 17 Zoe baked some chocolate cookies and gave half of them to Mabel. Mabel baked some butter cookies and gave half of them to Zoe. Zoe ate 5 butter cookies and the ratio of the number of chocolate cookies to the number of butter cookies she had left became 4 : 1. Mabel ate 3 chocolate cookies and the ratio of the number of chocolate cookies she had left to the number of butter cookies became 3 : 1.
- (a) Were there more chocolate cookies or butter cookies at first?
- (b) How many chocolate cookies did Zoe bake?

Ans: (a) \_\_\_\_\_ [1]

(b) \_\_\_\_\_ [4]

End of Paper



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YEAR : 2020  
 LEVEL : PRIMARY 6  
 SCHOOL : TEMASEK PRIMARY SCHOOL  
 SUBJECT : MATHEMATICS  
 TERM : PRELIMINARY EXAMINATIONS

**PAPER 1**  
**BOOKLET A**

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

**BOOKLET B**

Q16. 13

Q17. 6.04

Q18.  $1\frac{1}{6}, \frac{5}{4}, \frac{4}{3}$

Q19. 1:6

Q20.

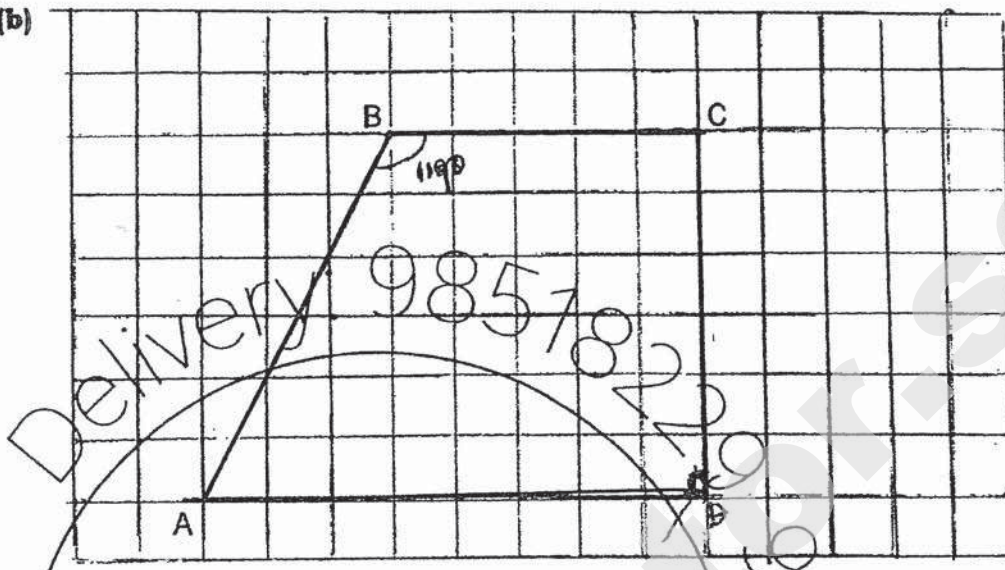




Q21. 750 pages

Q22. (a)  $119^\circ$

(b)



Q23. 3.5kg

Q24. 400 people

Q25.



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Q26. 3.2kg

Q27. True, False, True

Q28. 19 \$10 notes

Q29.  $\frac{7}{15}$

Q30. 10:4:5

**PAPER 2**

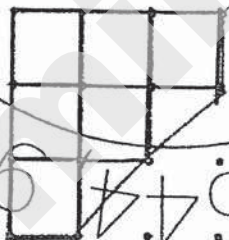
Q1.  $\text{Total} = \$725 \times 4$   
 $= \$2900$

$6C = \$2900 - \$900 - \$800 - \$700$   
 $= \$500$

Q2.  $\text{Breadth} = 6g \div 3$   
 $= 2g\text{cm}$

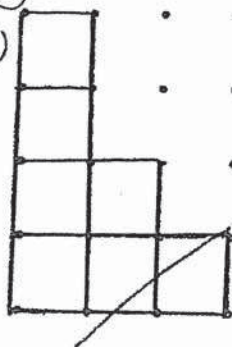
$\text{Perimeter} = (2g \times 2) + (5 \times 6)$   
 $= (4g + 30)\text{cm}$

Q3.



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Front View

Q4.  $\text{Distance between 2 big lanterns} = 9 + 4 + 9$   
 $= 22\text{m}$

$\text{No. of big lanterns} = (1430 \div 22) + 1$   
 $= 66$

Q5. (a) Tile D

(b)  $\text{Area of square} = 4 \times 16$   
 $= 64\text{cm}^2$

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Q6. (a) Let  $u = \text{units}$ ,  
 $6u - 2u = 4u$   
 $4u = 68$   
 $1u = 68 \div 4$   
 $= 17$

No. of cakes at first  $= 2u$   
 $= 17 \times 2$   
 $= 34$

(b) Amt. collected  $= 34 \times \$26$   
 $= \$884$

Q7. (a)  $28 \div 6 = 4 \text{ r } 4$   
Least amt. of money paid  $= (4 \times \$10) + (4 \times \$2)$   
 $= \$48$

(b)  $36 \div 6 = 6$   
 $6 - 1 = 5$   
5 boxes  $= 5 \times \$10$   
 $= \$50$   
 $\$50 - \$48 = \$2$

Q8. (a) Cost for 3 hours  $= 3 \times \$8$   
 $= \$24$   
Amt. paid by each person  $= \$24 \div 4$   
 $= \$6$

(b) Amt. paid by each person  $= (3 \times \$12) \div 4$   
 $= \$9$   
 $\$9 - \$6 = \$3$

Q9. (a) Cost  $= (3 \times y) + [2 \times (y + 40)]$   
 $= 3y + 2y + 80$   
 $= (5y + 80) \text{cents}$

(b) Amt. of money Shernice has  $= (5 \times 90) + 80 - 30$   
 $= 500 \text{cents}$   
 $= \$5$

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Q10. (a)  $240 - 200 = 40$   
Amt. paid for outgoing calls  $= 40 \times 15$   
 $= 600 \text{cents}$   
 $= \$6$

Amt. paid for data  $= \$10$   
Total amt. paid  $= \$10 + \$6$   
 $= \$16$

(b) Difference  $= \$19.90 - \$16$   
 $= \$3.90$



Q11. (a) Groups A and B

(b) Total no. of students =  $25 + 35 + 20 + 55 + 40 + 30 + 60 + 35$   
 $= 300$

$$\text{Fraction} = \frac{30}{300}$$
$$= \frac{1}{10}$$

Q12. (a) Volume of water =  $\frac{4}{5} \times (50 \times 40 \times 30)$

$$= \frac{4}{5} \times 60000$$

$$= 48000 \text{ ml}$$

$$= 48 \text{ l}$$

(b) Volume of water =  $\frac{1}{4} \times 60000$

$$= 15 \text{ l}$$

The tank was  $\frac{1}{4}$  filled with water at 8 a.m.

Q13. At first,

Star-shaped : Heart-shaped

$$3 : 1$$

$$45 : 15$$

In the end,

Star-shaped : Heart-shaped

$$27 : 10$$

$$27u + 10u = 37u$$

$$37u = 111$$

$$1u = 111 \div 37$$

$$= 3$$

No. of stickers bought =  $45u + 15u$

$$= 60u$$

$$= 60 \times 3$$

$$= 180$$

Q14. (a)

$$2\angle d = \frac{180^\circ - 90^\circ}{2}$$

$$2\angle d = 45^\circ$$

$$\angle d = 45^\circ \div 2$$

$$= 22.5^\circ$$

(b)

$$\angle z = 90^\circ + 45^\circ$$

$$= 135^\circ$$



**Q15. Amt. earned for the first \$800 =  $10\% \times \$800$   
= \$80**

$$\$210 - \$80 = \$130$$

**5% of remaining selling price = \$130**

$$100\% \text{ of the remaining selling price} = \$130 \times \frac{100}{5} = \$2600$$

$$\text{Price of laptop} = \$2600 + \$800 = \$3400$$

**Q16. (a) Area of ABC =  $\frac{1}{4} \times 3.14 \times 10 \times 10$   
=  $78.5\text{cm}^2$**

**(b) Area of A =  $\frac{1}{2} \times 10 \times 10 = 50$**

**Area of small square =  $5 \times 5 = 25$**

**Area of small quadrant =  $\frac{1}{4} \times 3.14 \times 5 \times 5 = 19.625$**

**Area of AB =  $25 - 19.625 = 5.375$**

**Area of leaf =  $78.5 - 50 = 28.5$**

**Area of shaded part =  $50 - 28.5 - 5.375 = 16.125\text{cm}^2$**

**Q17. a)**

Z

M

C

:

B

C

:

B

4u

1u

3u

:

1u

**There were more chocolate cookies at first.**

**b)**

$$1u = (3 \times 5) + 3 = 18$$

$$8u = 18 \times 8 = 144 \text{ cookies.}$$



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