Anglo-Chinese School (Junior)

SEMESTRAL ASSESSMENT 1 (2019)

PRIMARY 6

MATHEMATICS

PAPER 1

Booklet A

Wednesday **15 May 2019** **1 h**

Name: _____ ( ) Class: 6.( )

INSTRUCTIONS TO PUPILS

1 Do not turn over the pages 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 You are **not** allowed to use a calculator for this paper.

This question paper consists of 7 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 (1, 2, 3 or 4) on the Optical Answer Sheet (OAS). (20 marks)

1. What is 273 596 rounded to the nearest thousand?

   1) 270 000
   2) 273 000
   3) 273 600
   4) 274 000

2. In 547.183, what does the digit 8 stand for?

   1) 8 tens
   2) 8 tenths
   3) 8 hundredths
   4) 8 thousandths

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

   1) $\frac{13}{40}$
   2) $\frac{9}{24}$
   3) $\frac{3}{16}$
   4) $\frac{5}{12}$

4. 3 hundreds, 12 tenths and 9 thousandths, written in numerals, is

_____.

1) 312.009
2) 301.209
3) 301.029
4) 300.129

5. The table below shows the length of a newborn baby measured at the end of each month over a period of 5 months.

Month	Length (cm)
1st	54.5
2nd	57.2
3rd	60.1
4th	63.4
5th	65.8

During which one-month period did the newborn baby grow the most?

1) Between 1st and 2nd month
2) Between 2nd and 3rd month
3) Between 3rd and 4th month
4) Between 4th and 5th month

6. How many minutes are there in $1\frac{1}{2}$ hours?

1) 65 minutes
2) 90 minutes
3) 110 minutes
4) 150 minutes

7. Square A has an area of 36 cm^2. Square B has an area of 81 cm^2. Find the difference in their length.

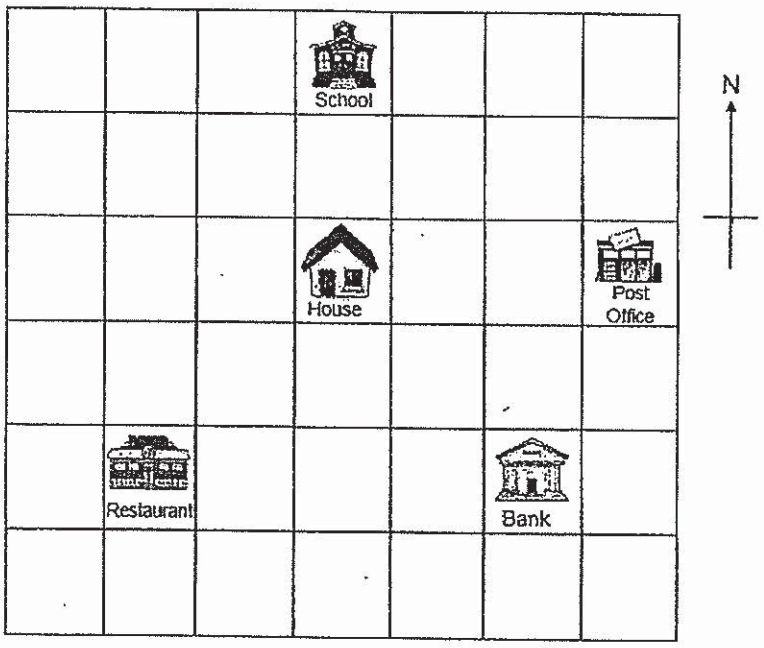
1) 6 cm
2) 9 cm
3) 3 cm
4) 15 cm

8. Jeremy's height is $\frac{9}{11}$ of Terence's height. Find the ratio of Terence's height to their total height.

1) 9 : 11
2) 11 : 9
3) 9 : 20
4) 11 : 20

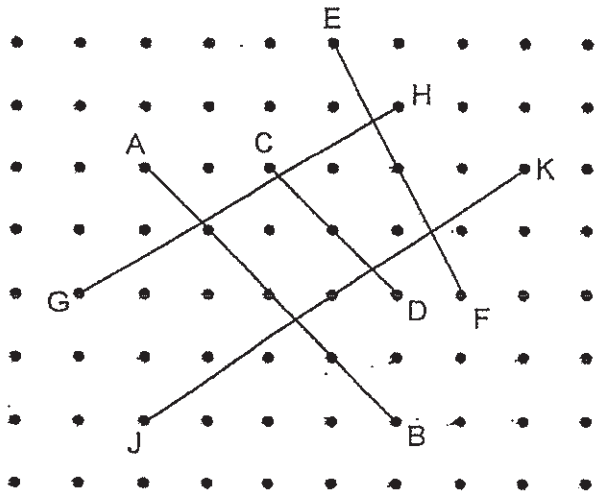
9. Which building is south-east of the house?

1) Bank
2) School
3) Post Office
4) Restaurant



10. Which 2 lines in the figure are parallel to each other?

1) AB and CD
2) CD and EF
3) GH and JK
4) AB and EF



11. The workers arranged all the chairs in the auditorium in rows of 24 and there was no remainder. When the chairs were rearranged in rows of 18, there were 3 more rows but 6 chairs left over. How many chairs were there in the auditorium?

1) 162
2) 180
3) 216
4) 240

12. The average mass of 4 pupils is 43 kg. When another pupil's mass is added, the average mass is 45 kg. What is the mass of the 5th pupil?

1) 43 kg
2) 44 kg
3) 53 kg
4) 58 kg

13. Mr Tan bought y boxes of apples. Each box contained 9 apples. He threw away 5 rotten apples and repacked the remaining apples into bags of 4. How many bags did he use?

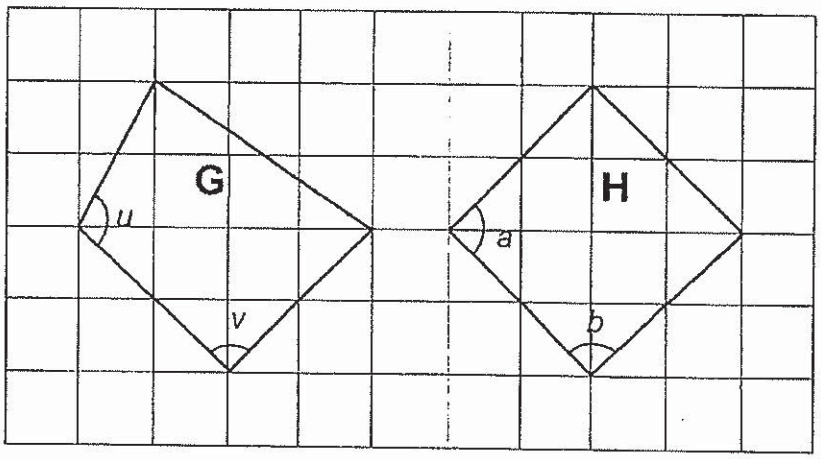
1) $\frac{y-5}{4}$

2) $\frac{9y-5}{4}$

3) $\frac{y}{4}-5$

4) $\frac{9y}{4}-5$

14. Two figures, G and H, are shown in the square grid below.



Which of the following statement(s) is/are **true**?

A. $\angle u + \angle y = \angle a + \angle b$

B. Figure G has the same area as Figure H.

C. Figure G has the same perimeter as Figure H.

1) A only

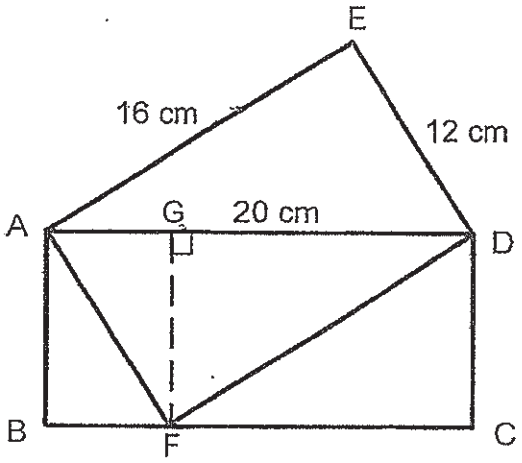
2) B only

3) A and C only

4) B and C only

15. The figure below shows two rectangles overlapping each other. ED = 12 cm, AE = 16 cm and AD = 20 cm. Find the length of FG.

1) 4.8 cm
2) 8 cm
3) 9.6 cm
4) 12 cm



End of Booklet A

Anglo-Chinese School (Junior)

SEMESTRAL ASSESSMENT 1 (2019)

PRIMARY 6

MATHEMATICS

PAPER 1

Booklet B

Wednesday **15 May 2019** **1 h**

Name: _____ ( ) Class: 6.( )

INSTRUCTIONS TO PUPILS

1 Do not turn over the pages until you are told to do so.

2 Follow all instructions carefully.

3 Answer ALL questions.

4 You are **not** allowed to use a calculator for this paper.

This question paper consists of 9 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 to the units stated. (5 marks)

16. Find the value of $\frac{3}{4} + \frac{5}{7}$.
Give your answer as a mixed number.

Ans : _____

17. Find the value of $213 - 26 \times 4 + 56 \div 8$.

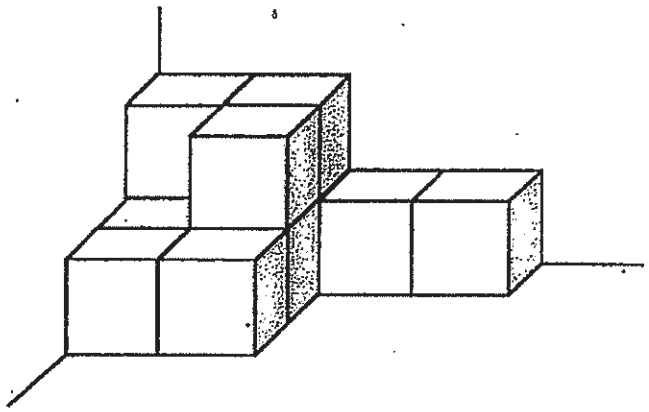
Ans : _____

18. Mrs Tan mixed coffee and milk in the ratio 3 : 8 to make a Latte. How many litres of Latte did she make if she used 6 litres of coffee?

Ans : _____ litres

Sub-Total.:

19. The figure below is made up of 1-cm cubes. What is the volume of the figure?



Ans: _____ cm^3

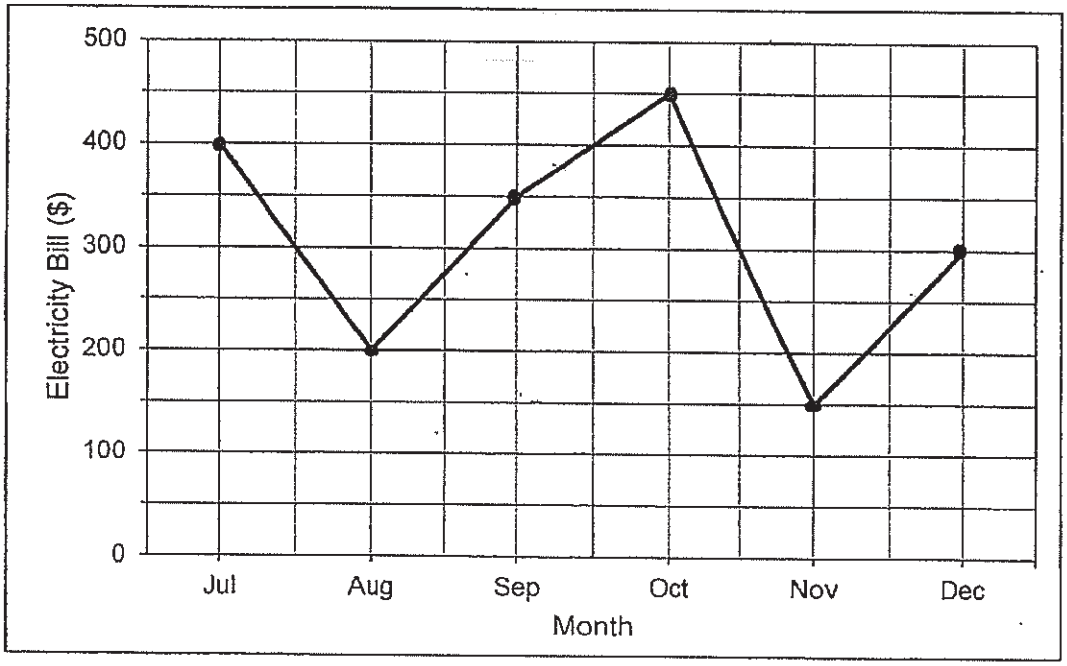
20. A rectangular tank measures 60 cm by 30 cm by 50 cm is $\frac{3}{5}$ filled with water. Find the volume of water in the tank.

Ans: _____ cm^3

Sub-Total :

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. The line graph below shows Mr Toh's electricity bill from July to December.

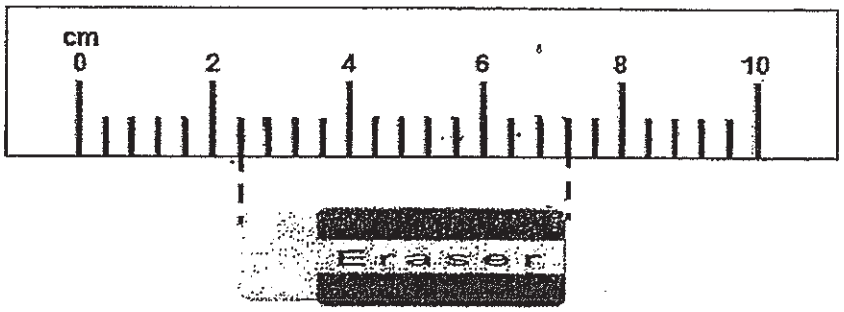


What is the percentage decrease in the amount of his electricity bill in September compared to July?

Ans: _____ %

Sub-Total :

22. Find the length of the eraser.



Ans: _____ cm

23. The information given in the table below shows the amount of money Mrs Tang spent for the first four months of 2019.

Month	Amount of money spent
January	$ 210
February	
March	$ 352
April	$275

The average amount of money Mrs Tang spent for the four months was $270. How much did she spend in February?

Ans : $ _____

Sub-Total :

24. The table below shows the prices for printing a photograph in a printing shop.

Number of photographs	Price
First 12 pieces	90¢ per piece
Every additional piece	50¢ per piece

Mr Lee paid $14.80 to print his photographs.
How many pieces of photographs did he print?

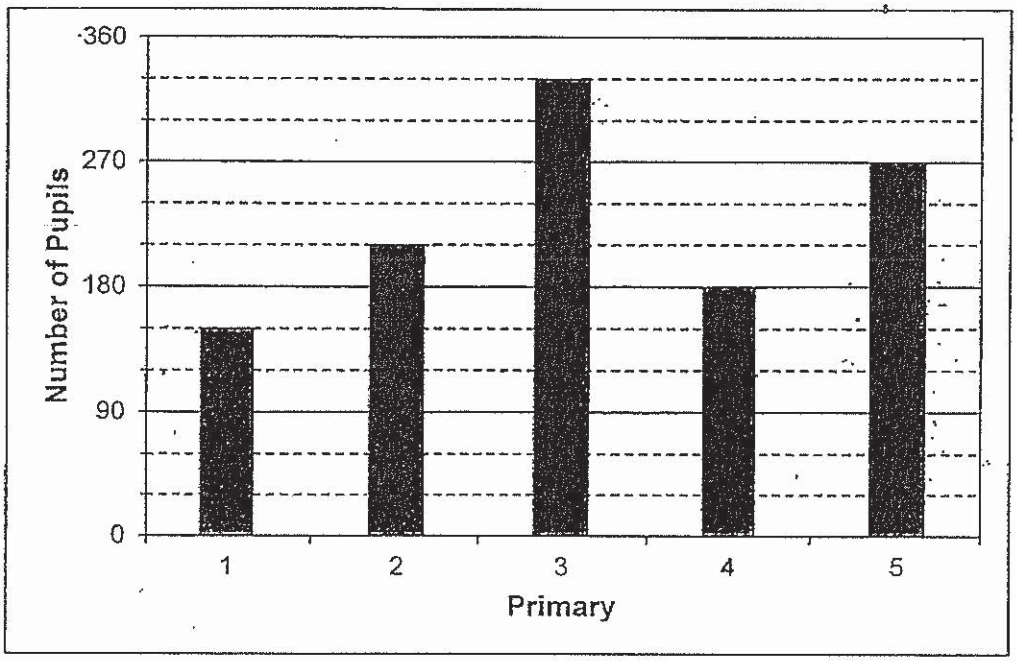
Ans : _____

25. A total of 130 people stand in a queue for a roller coaster ride in a theme park. There are at least 3 teenagers between any 2 adults. What is the largest possible number of adults in the queue?

Ans : _____

Sub-Total : [ ]

26. The graph below shows the number of pupils in each level who are members of the library.



The number of girls who are members of the library is twice the number of boys for Primary 1 to Primary 5. How many boys are members of the library altogether?

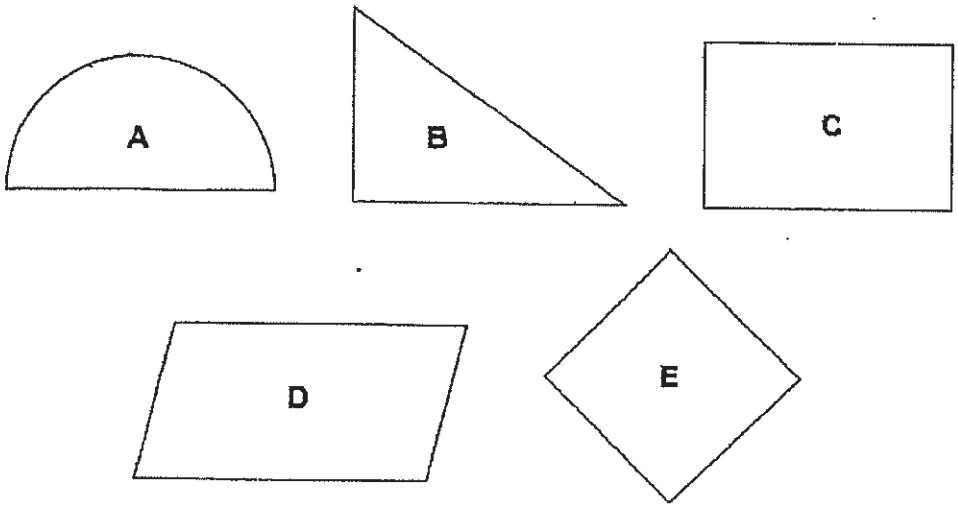
Ans : _____

27. At first, Rajah had 78 red and blue cards. He gave away 6 red cards and increased the number of blue cards by 60%. In the end, he had a total of 90 cards. How many blue cards did he have at first?

Ans : _____

Sub-Total :

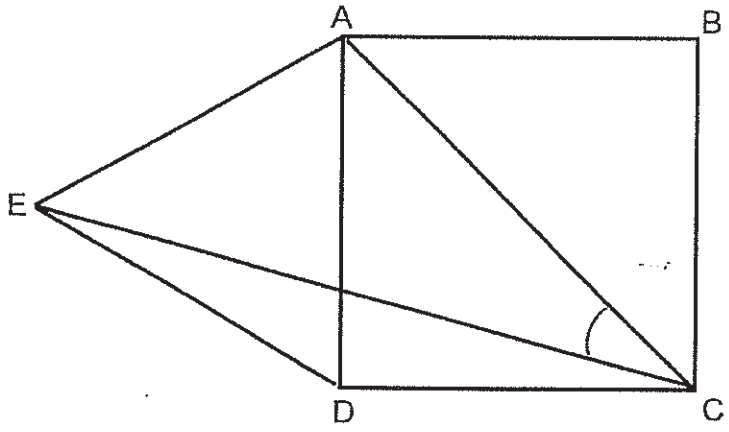
28. Robert drew five figures shown below. A is a semi-circle, B is a right-angled triangle, C is a rectangle, D is a parallelogram and E is a rhombus.



Name all the figures above that have at least one line of symmetry.

Ans : _____

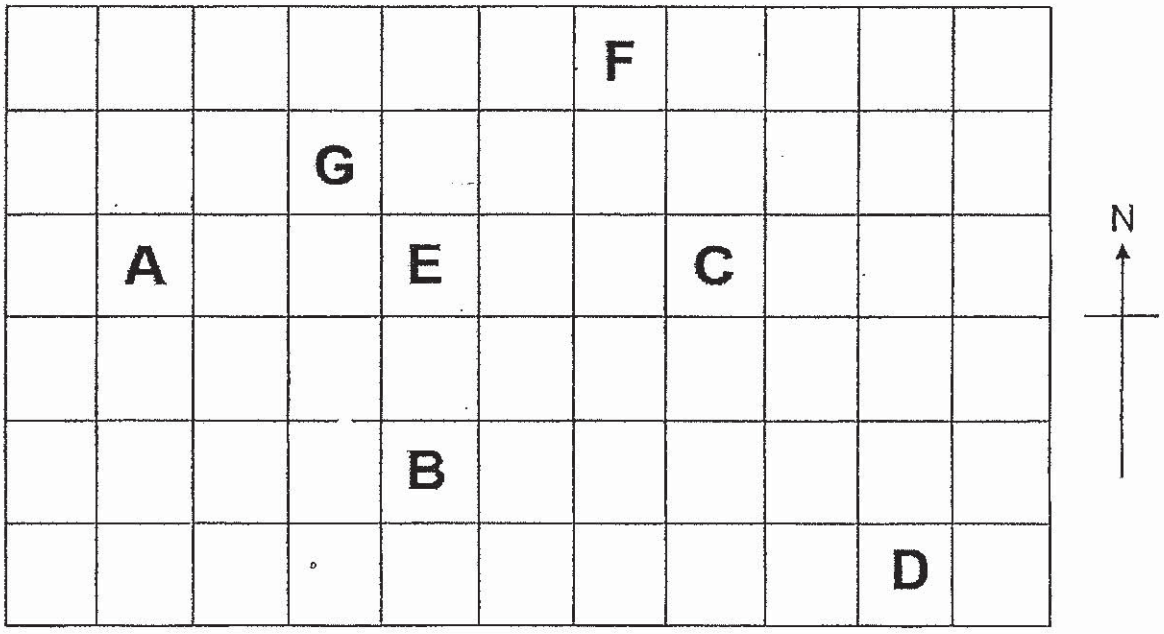
29. In the figure below, ABCD is a square and AED is an equilateral triangle. Find ∠ACE.



Ans : _____ °

Sub-Total : [ ]

30. The square grid below shows 7 locations A, B, C, D, E, F, and G on a map.



(a) In which direction is Location A from Location E?

(b) From a particular location, Henry moved 1 step due west, 4 steps due north, 6 steps due east and 5 steps due south. He ended up at Location D. Which location did Henry start from?

Ans : (a) _____

(b) _____

End of Booklet B

Sub-Total : [ ]

Anglo-Chinese School (Junior)

SEMESTRAL ASSESSMENT 1 (2019)

PRIMARY 6

MATHEMATICS

PAPER 2

Wednesday **15 May 2019** **1 h 30 min**

Name: _____( ) Class: 6.( ) Parent's Signature:_____

INSTRUCTIONS TO PUPILS

1 Do not turn over the pages until you are told to do so.

2 Follow all instructions carefully.

3 Answer ALL questions.

4 You can use a calculator for this paper.

Paper	Booklet	Possible Marks	Marks Obtained
1	A	20	
	B	25	
2		55	
Total		100	

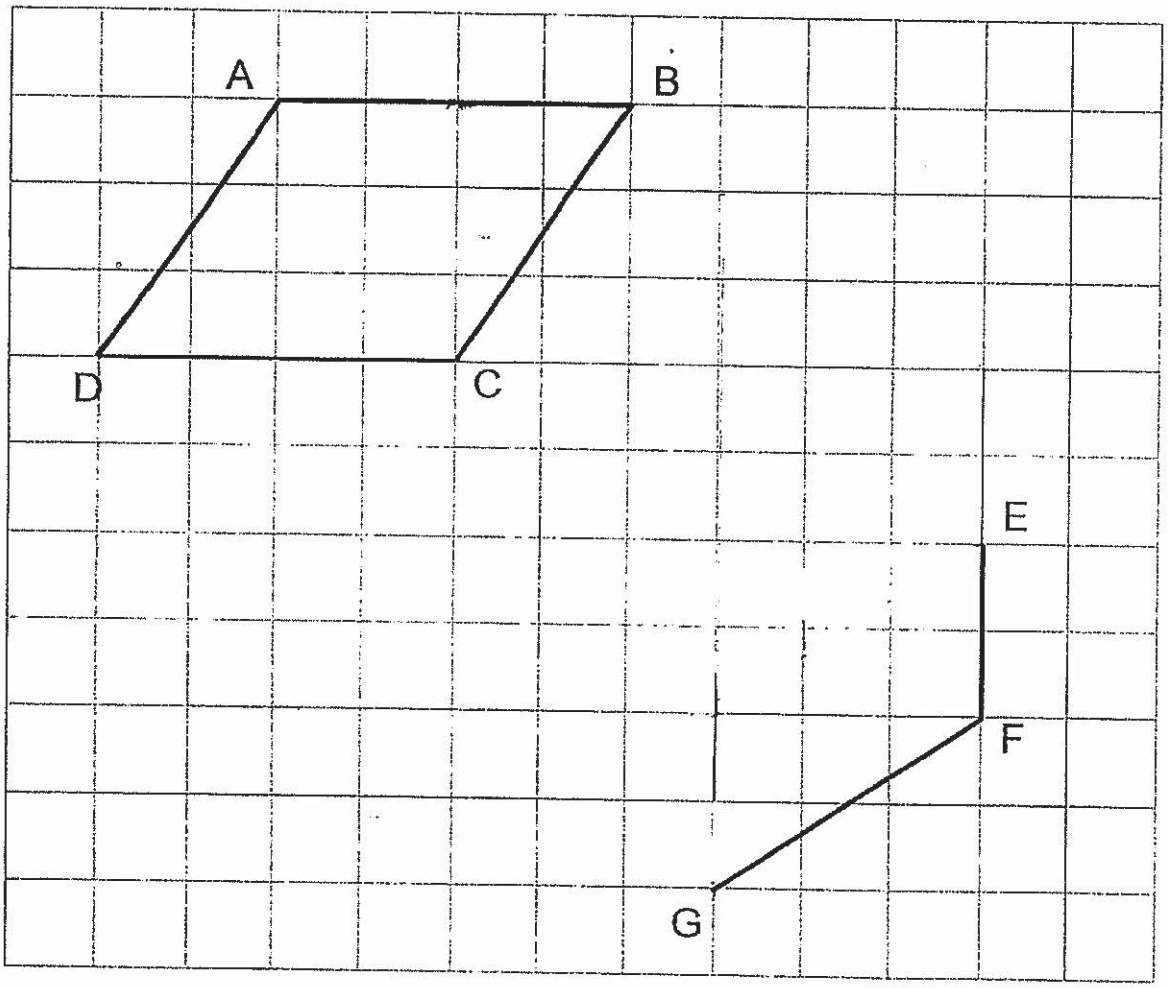
This question paper consists of 16 printed pages (inclusive of cover page).

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

1. In the square grid below, figure ABCD is a parallelogram.

   (a) Measure and write down the value of ∠DCB.

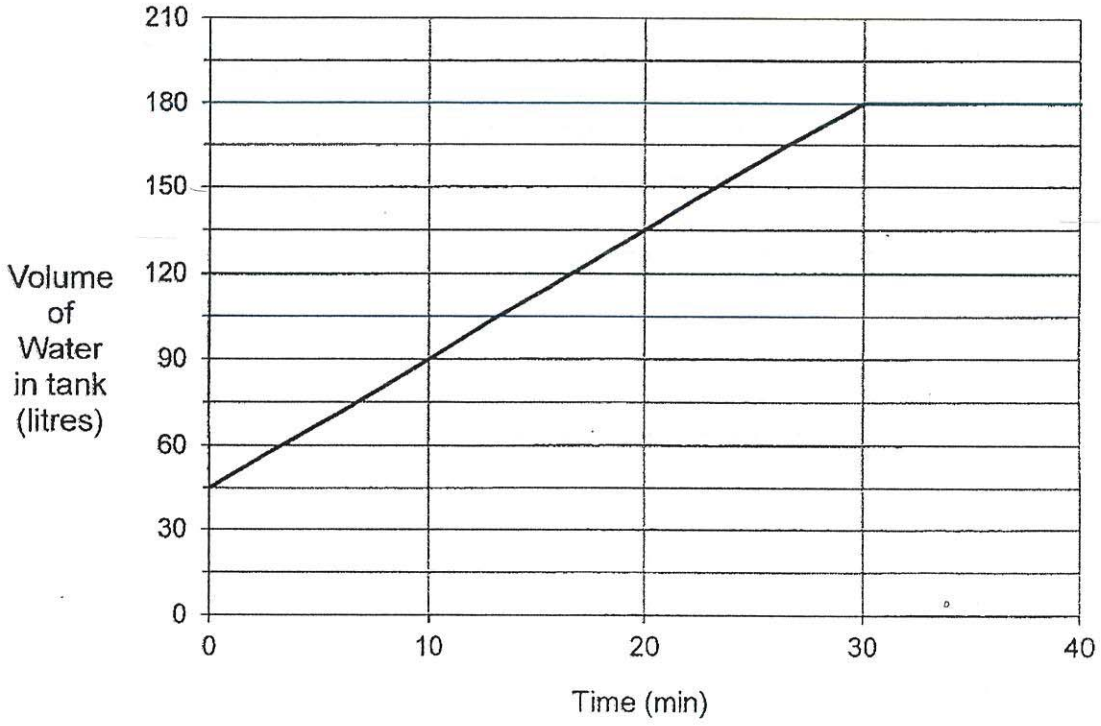
   (b) EF and FG form two sides of a trapezium. Complete the drawing of trapezium EFGH such that the perimeters of trapezium EFGH and parallelogram ABCD are the same.



Ans : (a) _____ °

Sub-Total :

2. A rectangular tank was partly filled with water. A tap was turned on for half an hour to fill the tank completely. The line graph below shows the volume of water in the tank at regular intervals of time.



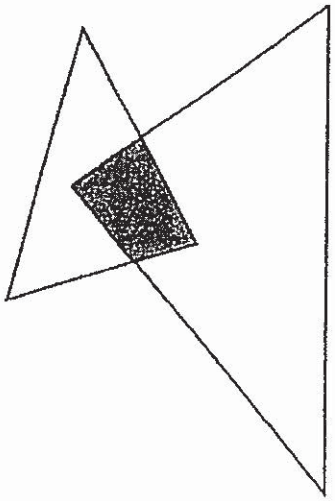
What was the rate of the flow of water from the tap, in litres per minute?

Ans : _____ ℓ / min

(2)

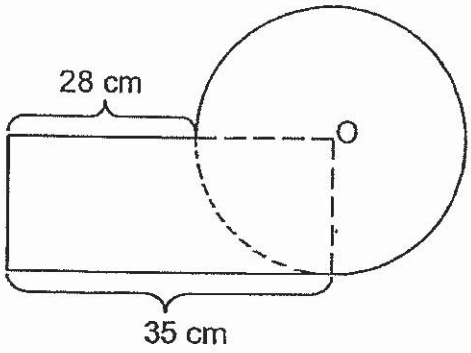
Sub-Total :

3. The figure below is made up of 2 triangles. The ratio of the area of the small triangle to the area of the big triangle is 7 : 19. The ratio of the shaded area to the area of the small triangle is 3 : 7. The area of the unshaded part of the figure is 240 cm^2. Find the area of the whole figure.



Ans : _____ cm^2

4. The figure shown below is made up of a circle and a rectangle. O is the centre of the circle. Find the total area of the figure. (Take $\pi = \frac{22}{7}$)



Ans : _____ cm^2

Sub-Total : [ ]

5. Three children Amy, Brendon and Chandra had the same number of coins at first. Amy and Brendon had a mix of fifty-cent and one-dollar coins. Amy had 18 fifty-cent coins while Brendon had 12 fifty-cent coins. Chandra had only one-dollar coins. The three of them then used 10 coins each to buy some files.

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

	Statement	True	False	Not possible to tell
(a)	Amy spent more money than Brendon.			
(b)	Chandra had the most amount of money left.			

Sub-Total : [ ]

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)

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6. 285 children took part in a competition. $\frac{2}{5}$ of the boys and $\frac{1}{3}$ of the girls were prize-winners. An equal number of boys and girls did not win any prizes. How many children were prize-winners?

Ans : _____ [3]

7. A pen costs \$k. A notebook costs 70 cents more than the pen.

(a) What is the cost of 3 pens and a notebook?
Express your answer in terms of k in the simplest form.

(b) Aaron paid \$10.30 for 3 pens and a notebook. What is the value of k?

Ans : (a) _____ [1]

(b) _____ [2]

Sub-Total : ☐

8. A lorry was travelling from Town X to Town Y when a van travelled at 60 km/h in the opposite direction. The lorry passed the van midway between the two towns and then took $1\frac{1}{4}$ hours to complete its remaining journey to Town Y. When the lorry reached Town Y, the van was still 28 km away from Town X. What was the distance between Town X and Town Y?

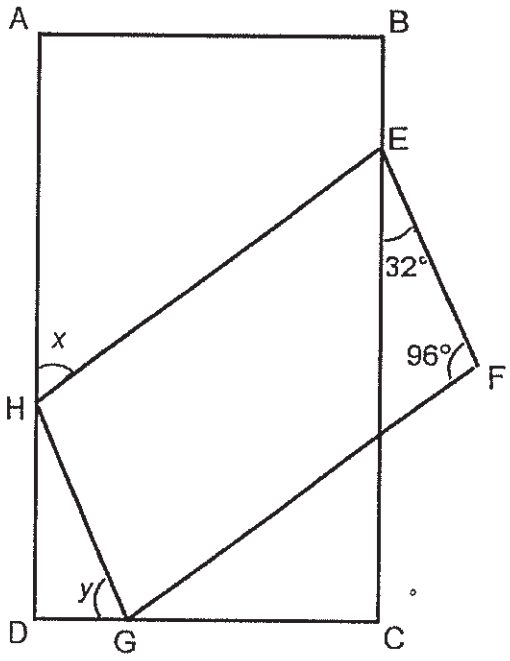
Ans : _____ [3]

Sub-Total :

9. ABCD is a rectangle and EFGH is a parallelogram. $\angle FEC = 32°$ and $\angle EFG = 96°$. Find

(a) $\angle x$

(b) $\angle y$

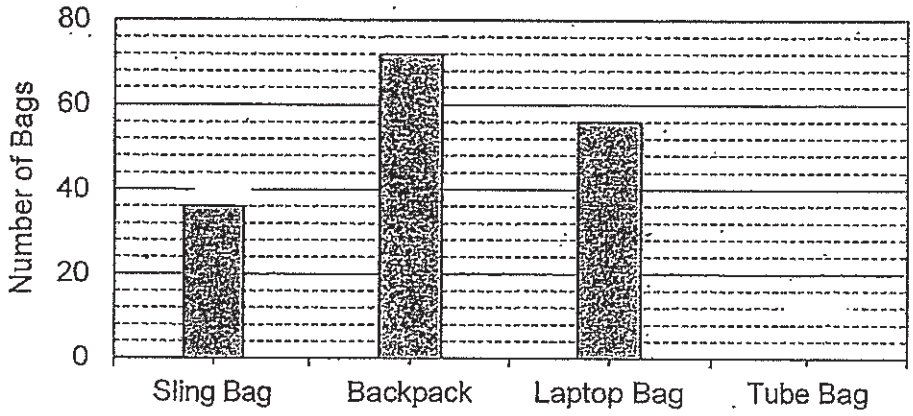


Ans : (a) _____ [1]

(b) _____ [2]

Sub-Total :

10. The bar graph below shows the number of each type of bag sold in a shop. The bar that shows the number of tube bags sold has not been drawn.



The table shows the prices of the bags.

Type of bag	Price per bag
Sling bag	$15
Backpack	$36
Laptop bag	$40
Tube bag	$9

(a) The amount of money collected from the sale of tube bags was $\frac{1}{3}$ of the amount of money collected from the sale of sling bags. How many tube bags were sold?

(b) What fraction of the bags sold were laptop bags?
Give your answer in the simplest form.

Ans : (a)_____ [2]

(b)_____ [2]

Sub-Total :

11. Mr Gan ordered 45 pots of plants to decorate the corridor for a school concert. They were to be placed in a straight row from one end to the other end of the corridor at an equal spacing of 1.2 m apart.

On the day of the concert, Mr Gan was short of 11 pots of plants. As a result, the remaining pots of plants had to be placed from one end to the other end of the corridor at a new equal spacing.

What was the new spacing between 2 pots of plants?

Ans : _____ [3]

Sub-Total :

12. Mr Lim baked 1800 egg tarts and chocolate muffins in the morning. $\frac{3}{4}$ of the egg tarts and $\frac{3}{4}$ of the chocolate muffins were sold in the afternoon.

(a) How many egg tarts and chocolate muffins had he left after selling them in the afternoon?

(b) Mr Lim then baked another 45 egg tarts and 75 chocolate muffins and the number of egg tarts became $\frac{2}{3}$ of the number of chocolate muffins. How many egg tarts did he bake in the morning?

Ans : (a)_____ [1]

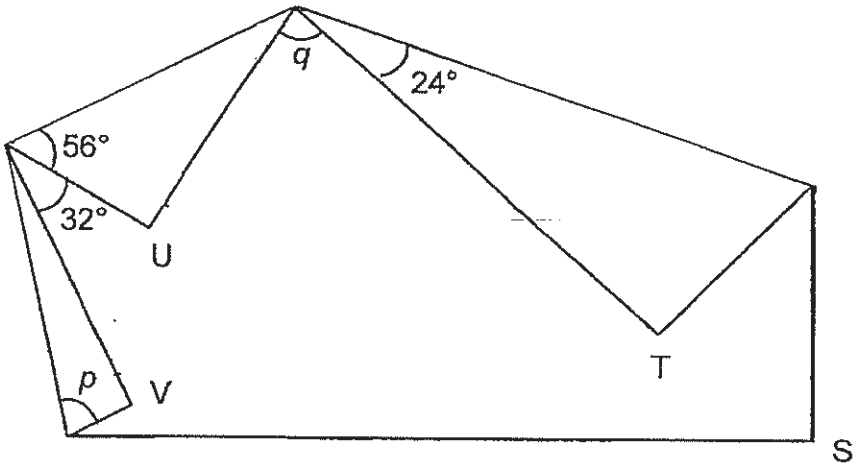
(b)_____ [3]

Sub-Total :

13. In the figure below, a rectangular piece of paper STUV is folded at three of the corners T, U and V. Find

(a) $\angle p$

(b) $\angle q$



Ans : (a) _____ [2]

(b) _____ [2]

Sub-Total :

14. After using 1280 ml of paint to paint a table, Luke painted a chair with $\frac{1}{7}$ of the remaining paint. He then mixed in another 450 ml of paint and found that he was left with $\frac{3}{4}$ of the amount of paint he had at first. How many millilitres of paint did Luke have at first?

Ans : _____ [4]

Sub-Total :

15. There were toy cars, dolls and teddy bears in a shop. 30% of the toys were toy cars. The ratio of the number of dolls to the number of teddy bears was 4 : 1. There were 156 more dolls than toy cars. After some toy cars were sold, 16% of the remaining toys in the shop were toy cars. How many toy cars were left in the shop?

Ans : _____ [4]

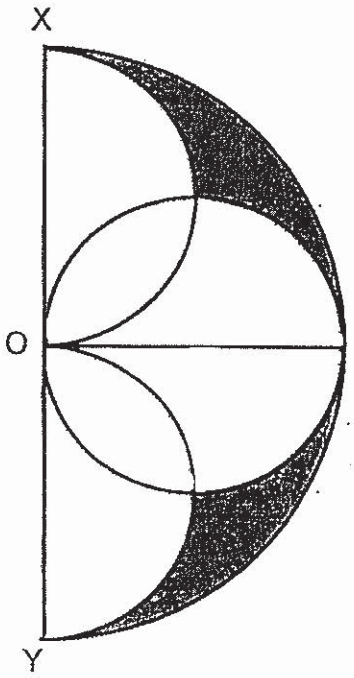
Sub-Total : ☐

16. The figure below is made up of 1 big semi-circle and 4 smaller identical semi-circles. O is the centre of the big semi-circle. XY is 84 m.

(a) Find the perimeter of the shaded part.

(b) Find the area of the shaded part.

(Take $\pi = \frac{22}{7}$)



Ans : (a) _____ [2]

(b) _____ [3]

Sub-Total :

17. Mrs Yong wants to tie 18 small identical parcels and 14 large identical parcels using ribbon. She has tied 15 small parcels and 6 large ones using 2100 cm of ribbon. The length of ribbon she used for 3 large parcels is the same as that of 5 small parcels.

(a) How many large parcels can be tied with the same length of ribbon used to tie 15 small parcels?

(b) What is the length of ribbon she needs to tie the remaining parcels?

Ans : (a)_____ [1]

(b)_____ [4]

End of Paper 2

Sub-Total :

YEAR	:	**2019**
LEVEL	:	**PRIMARY 6**
SCHOOL	:	**ANGLO-CHINESE SCHOOL (JUNIOR)**
SUBJECT	:	**MATHEMATICS**
TERM	:	**SEMESTRAL ASSESSMENT 1**

PAPER 1
BOOKLET A

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

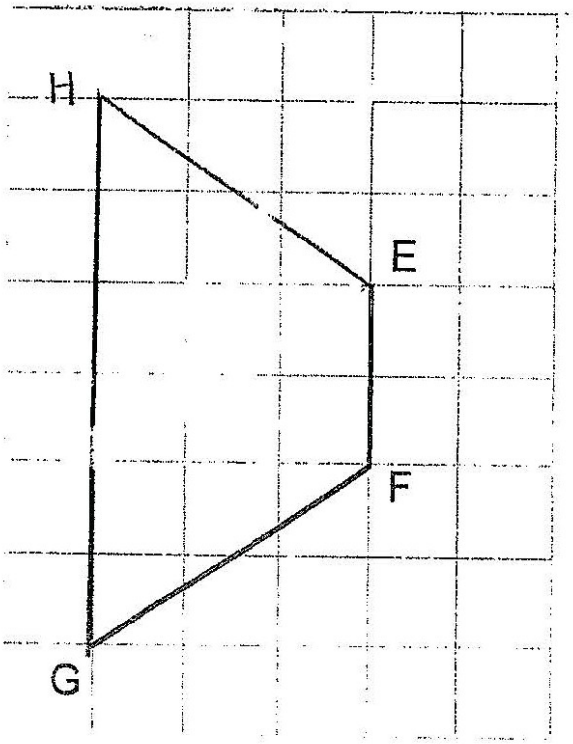
BOOKLET B

Q16. $1\frac{13}{28}$
Q17. 116
Q18. 22 litres
Q19. $11cm^2$
Q20. $54000cm^3$
Q21. 12.5%
Q22. 4.8cm
Q23. $243
Q24. 20 pieces
Q25. 33 adults
Q26. 380 boys
Q27. 30 blue cards
Q28. A, C and E
Q29. 30°
Q30. (a) West
(b) B

PAPER 2

Q1. **(a)** 124°

(b)



Q2. $180l - 45l = 135l$

$135 \div 30 = 4.5l/min$

Q3. **Area of small triangle : shaded area : area of big triangle**

7 : 3 : 19

$7u - 3u = 4u$

$19u - 3u = 16u$

$4u + 16u - 20u$

$20u \rightarrow 240\text{cm}^2$

$1u \rightarrow 12\text{cm}^2$

$4u + 3u + 16u = 23u$

Area of whole figure $\rightarrow 23 \times 12$

$= 276\text{cm}^2$

Q4. Area of rectangle $\rightarrow 35 \times 7$

$= 245\text{cm}^2$

Area of circle $\rightarrow \frac{22}{7} \times 7^2$

$= 154\text{cm}^2$

Area of overlapping quadrant $\rightarrow \frac{1}{4} \times 154$

$= 38.5\text{cm}^2$

Total area $\rightarrow 245 + 154 - 38.5$

$= 360.5\text{cm}^2$

Q5. **(a)** **Not possible to tell**

(b) **Not possible to tell**

Q6. $1 - \frac{2}{5} = \frac{3}{5}$

$1 - \frac{1}{3} = \frac{2}{3}$

$\frac{3}{5}$ of boys $= \frac{2}{3}$ of girls

$\frac{6}{10}$ of boys $= \frac{6}{9}$ of girls

$10u + 9u = 19u$

$19u \rightarrow 285$

$1u \rightarrow 15$

No. of prize-winners $\rightarrow 4u + 3u$

$= 7u$

$= 7 \times 15$

$= 105$

Q7. **(a)** $70¢ = \$0.70$

Total cost $\rightarrow (3 \times \$k) + (\$k + \$0.70)$

$= \$(4k + 0.70)$

(b) $4k + 0.70 = 10.30$

$4k = 9.60$

$k = 2.40$

Q8. $60 \times 1\frac{1}{4} = 75\text{km}$

$75 + 28 = 103\text{km}$

Distance between Town X and Town Y $= 103 \times 2$

$= 206\text{km}$

Q9. (a) $\angle x = 180° - 96° - 32°$

$= 52°$

(b) $\angle DHG = 180° - 52° - 96°$

$= 32°$

$\angle y = 180° - 32° - 90°$

$= 58°$

Q10. (a) Money collected from sale of tube bags $\rightarrow \$15 \times 36 \times \frac{1}{3}$

$= \$180$

No. of tube bags $\rightarrow \$180 \div \$9$

$= 20$

(b) Fraction $\rightarrow \frac{56}{36+72+56+20}$

$= \frac{56}{184}$

$= \frac{7}{23}$

Q11. $45 - 1 = 44$

$44 \times 1.2\text{m} = 52.8\text{m}$

$44 - 11 = 33$

New spacing $\rightarrow 52.8 \div 33$

$= 1.6\text{m}$

Q12. (a) $1 - \frac{3}{4} = \frac{1}{4}$

Egg tarts and chocolate muffins left $\rightarrow \frac{1}{4} \times 1800$

$= 450$

(b) Total no. of egg tarts and chocolate muffins $\rightarrow 1800 + 45 + 75$

$= 1920$

$2u + 3u = 5u$

$5u \rightarrow 1920$

$1u \rightarrow 384$

Total no. of egg tarts $\rightarrow 2u$

$= 2 \times 284$

$= 768$

No. of egg tarts baked in the morning $\rightarrow 768 - 45$

$= 723$

Q13. (a) $180° - 56° - 56° - 32° = 36°$

$36° \div 2 = 18°$

$\angle p = 180° - 90° - 18°$

$= 72°$

(b) $\angle q = 180° - 34° - 34° - 24° - 24°$

$= 64°$

Q14. $1280 - 450 = 830ml$

$1u + 830ml = \frac{1}{4}$ of total

$4u + 3320ml =$ total

$\frac{1}{7}$ of remainder $\rightarrow (3320 - 1280) \div 3$

$= 680ml$

Remainder $\rightarrow 680 \times 7$

$= 4760ml$

Amount of paint at first $\rightarrow 4760 + 1280$

$= 6040ml$

Q15. $100\% - 30\% = 70\%$

Teddy Bear : Dolls : Toy Cars

14 : 56 : 30

$56\% - 30\% = 26\%$

26% of total $\rightarrow 156$

1% of total $\rightarrow 6$

70% of total $\rightarrow 420$

$100\% - 16\% = 84\%$

70% of total $= 84\%$ of remainder

84% of remainder $\rightarrow 420$

1% of remainder $\rightarrow 5$

Toy cars left $\rightarrow 16\%$ of remainder

$= 80$

Q16. (a) $\frac{1}{2} \times \frac{22}{7} \times 42 = 66\text{m}$

$66 \times 2 = 132\text{m}$

$\frac{1}{2} \times \frac{22}{7} \times 84 = 132\text{m}$

Perimeter $\rightarrow 132 + 132$

$= 264\text{m}$

(b) Area $\rightarrow \left(\frac{1}{2} \times \frac{22}{7} \times 42^2\right) - \left(\frac{22}{7} \times 21^2\right) - 21^2 - 21^2$

$= 504\text{m}^2$

Q17. **(a)** $3L = 5s$

$9L = 15s$

$\therefore$ Ans:9 large parcels

(b) $3L = 5s$

$6L = 10s$

$10s + 15s = 25s$

$25s \rightarrow 2100\text{cm}$

$1s \rightarrow 84\text{cm}$

$3L = 5s$

$= 5 \times 84$

$= 420\text{cm}$

$1L \rightarrow 420 \div 3$

$= 140\text{cm}$

Length needed $\rightarrow 3s + 8L$

$= (3 \times 84) + (8 \times 140)$

$= 1372$

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