METHODIST GIRLS' SCHOOL (PRIMARY)

Founded in 1887

END OF YEAR EXAMINATION 2025
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: 19 August 2025

This booklet consists of 7 printed pages including this page.

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

(20 marks)

1 In 8 532 194, the digit 3 stands for _____ .

(1) 300
(2) 3000
(3) 30 000
(4) 300 000

2 Which one of the following numbers is the smallest?

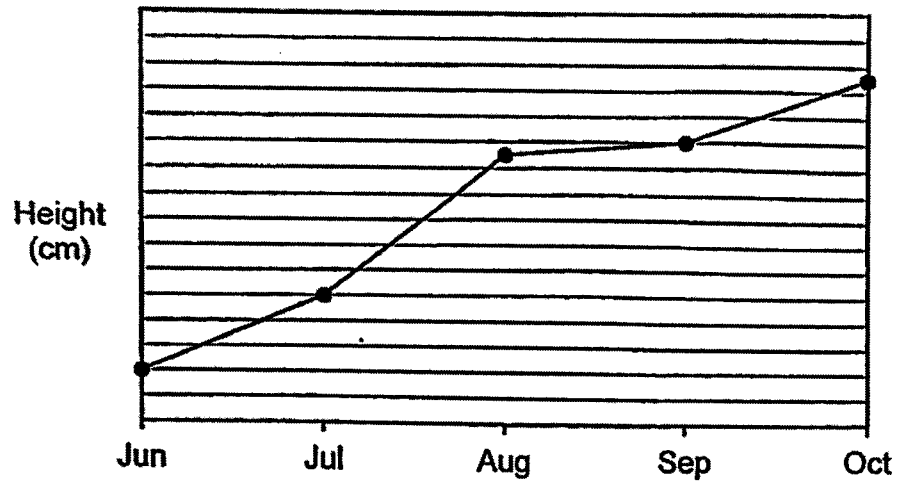
(1) 0.301
(2) 0.031
(3) 0.103
(4) 0.013

3 Express $2\frac{2}{8}$ as a decimal.

(1) 2.28
(2) 2.25
(3) 2.14
(4) 2.2

(Go on to the next pa

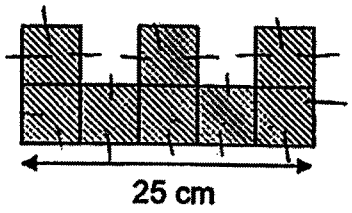
4 The graph shows the height of a plant from June to October.



In which month did the plant's height increase the most?

(1) June to July
(2) July to August
(3) August to September
(4) September to October

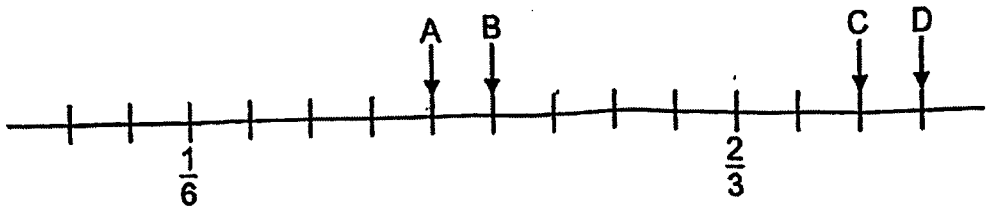
5 The figure below is made up of 8 identical squares. Find the perimeter of the figure.



(1) 40 cm
(2) 70 cm
(3) 90 cm
(4) 105 cm

(Go on to the next page)

6 In the number line below, which point represents $\frac{5}{6}$?

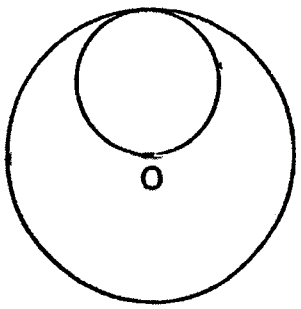


(1) A
(2) B
(3) C
(4) D

7 Express 20¢ as a percentage of $5.

(1) 4%
(2) 25%
(3) 400%
(4) 2500%

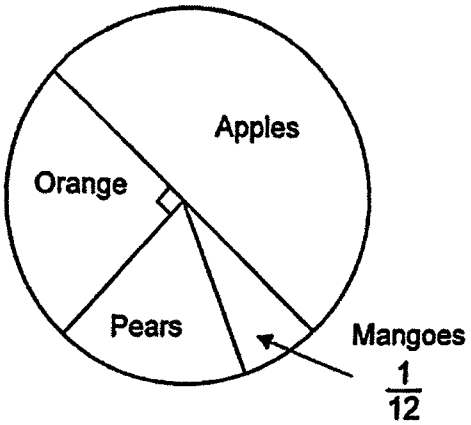
8 The figure below is made up of a big circle and a small circle. O is the centre of the big circle which has a diameter of 28 cm. Find the area of the small circle.
(Take $\pi = \frac{22}{7}$)



(1) 22 cm²
(2) 44 cm²
(3) 154 cm²
(4) 616 cm²

(Go on to the next page)

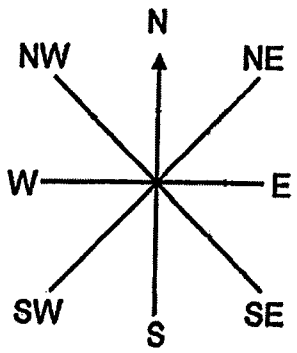
9 The pie chart below represents the number of fruits at a fruit stall.



There are 300 fruits at the fruit stall. There are twice as many apples as oranges. How many pears are there?

(1) 25
(2) 50
(3) 75
(4) 100

10 The figure below shows an 8-point compass. James was facing north-west (NW) at first. He turned 225° clockwise. Which direction is he facing now?



(1) North (N)
(2) South (S)
(3) East (E)
(4) West (W)

(Go on to the next page)

11 Calvin had 20 more stamps than Devi at first. After Devi gave 16 of her stamps to Calvin, Calvin now has 3 times as many stamps as Devi. How many stamps did Devi have at first?

(1) 18
(2) 26
(3) 34
(4) 42

12 The table below shows the number of books read by a class of P6 pupils. They read a total of 56 books . How many pupils read 3 books?

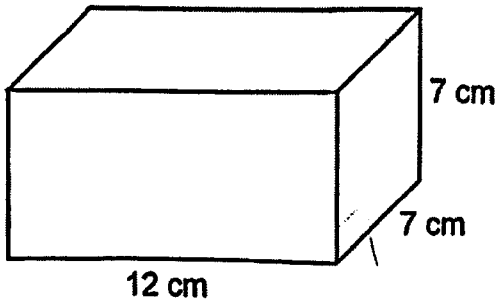
Number of books read per pupil	0	1	2	3	4
Number of pupils	3	14	11	?	2

(1) 26
(2) 12
(3) 3
(4) 4

13 A toy car cost $8 after a discount of 20%. Kenny was given a further discount of $2 because of the SG60 promotion at the toy store. What is the total percentage discount for the toy car?

(1) 20 %
(2) 25 %
(3) 40 %
(4) 60 %

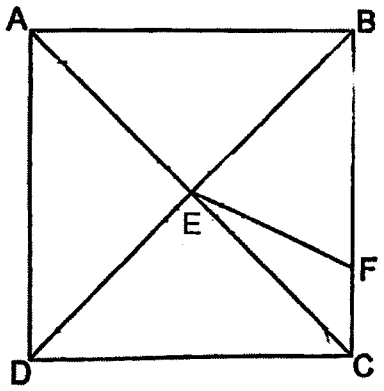
14 A cuboid measuring 12 cm by 7 cm by 7 cm was dipped into some red paint.



The cuboid was then cut into 1-cm cubes.
How many of the cubes would have none of their surfaces painted red?

(1) 588
(2) 539
(3) 396
(4) 250

15 In the figure, ABCD is a square. AC and BD are straight lines. BE = BF.
Find ∠CEF.



(1) 67.5°
(2) 45°
(3) 30°
(4) 22.5°

(Go on to Booklet B)

METHODIST GIRLS' SCHOOL (PRIMARY)

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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: 19 August 2025

/45

Parent's Signature: _____

This booklet consists of 9 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 down all the common factors of 9 and 18.

Ans: _____

17 Find the value of 3402 ÷ 20

Ans: _____

18 Find the value of 63 ÷ (9 – 6) + 4 x 12

Ans: _____

(Go on to the next page)

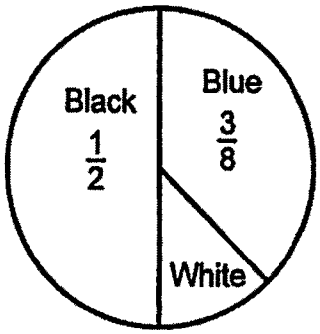
19 Find the value of $\frac{3}{8} \div 12$.

Give your answer as a fraction in the simplest form.

Do not write in this space

Ans: _____

20 All the members from a school club chose one colour for their club t-shirt. The pie chart shows their choices. 7 members chose White.
How many members were there in the club?



Ans: _____

(Go on to the next page)

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)

Do not write in this space

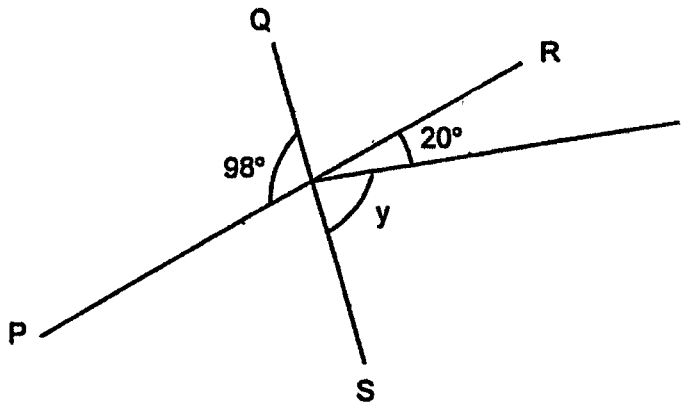
21 The table shows the hourly rate of work done at a call center.

Day	Hourly rate
Weekdays (Monday to Friday)	$8
Weekend (Saturday and Sunday)	$10

Leonard works at the call center for 10 hours daily on weekdays and 5 hours on Saturdays. How much does he earn in a week?

Ans: $ _____

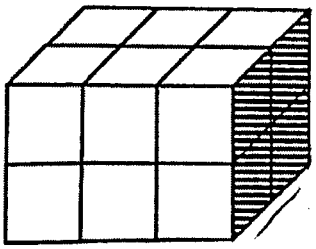
22 PR and QS are straight lines. Find ∠y.



Ans: _____ °

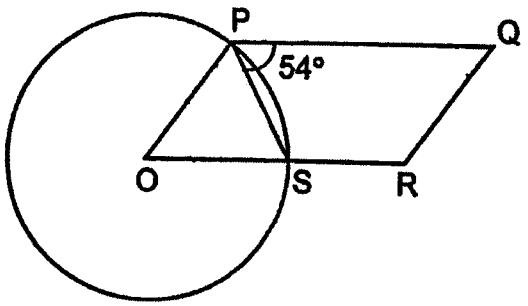
23 12 identical cubes are joined together to form a cuboid shown below. The shaded face of the cuboid is 16 cm^2. Find the volume of the cuboid.

Do not write in this space



Ans: _____ cm^3

24 The figure below is made up of a circle and a parallelogram. O is the center of the circle and $\angle QPS = 54°$. Find $\angle PQR$.



Ans: _____ °

(Go on to the next page)

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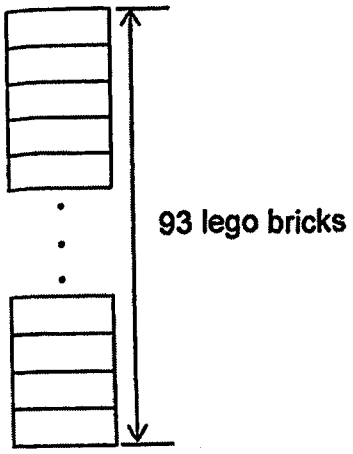
25 A bag contains marbles of three different colours. $\frac{1}{3}$ of the marbles are blue. The ratio of the number of red marbles to green marbles is 2 : 3. Find the ratio of the number of blue marbles to that of the green marbles.

Ans: _____

26 **A total of 93 Lego bricks are used to build a tower. There are at least 5 red bricks between any 2 blue bricks. What is the greatest number of blue bricks used?**



Ans: _____

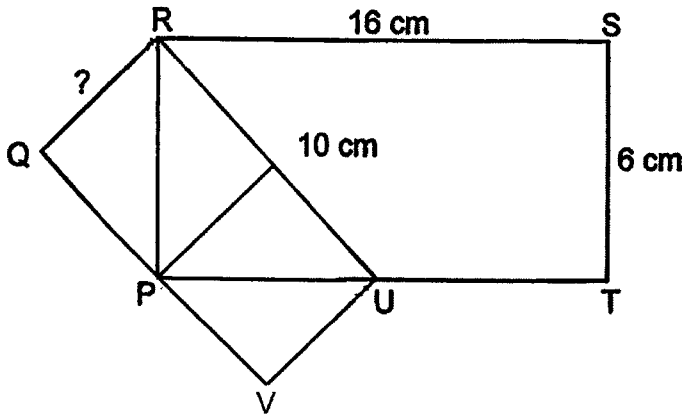
(Go on to the next page)

27 June had \$5a. After buying some cakes at \$5 each, she had \$2a left. How many cakes did she buy? Give your answer in terms of *a*.

Do not write in this space

Ans: _____

28 In the figure below, QRUV and PRST are rectangles. U is the midpoint of PT. RS = 16 cm, ST = 6 cm and UR = 10 cm.
Find the length of QR.



Ans: _____ cm

(Go on to the next page)

29 A table with 4 columns is filled with numbers in a pattern as shown below.

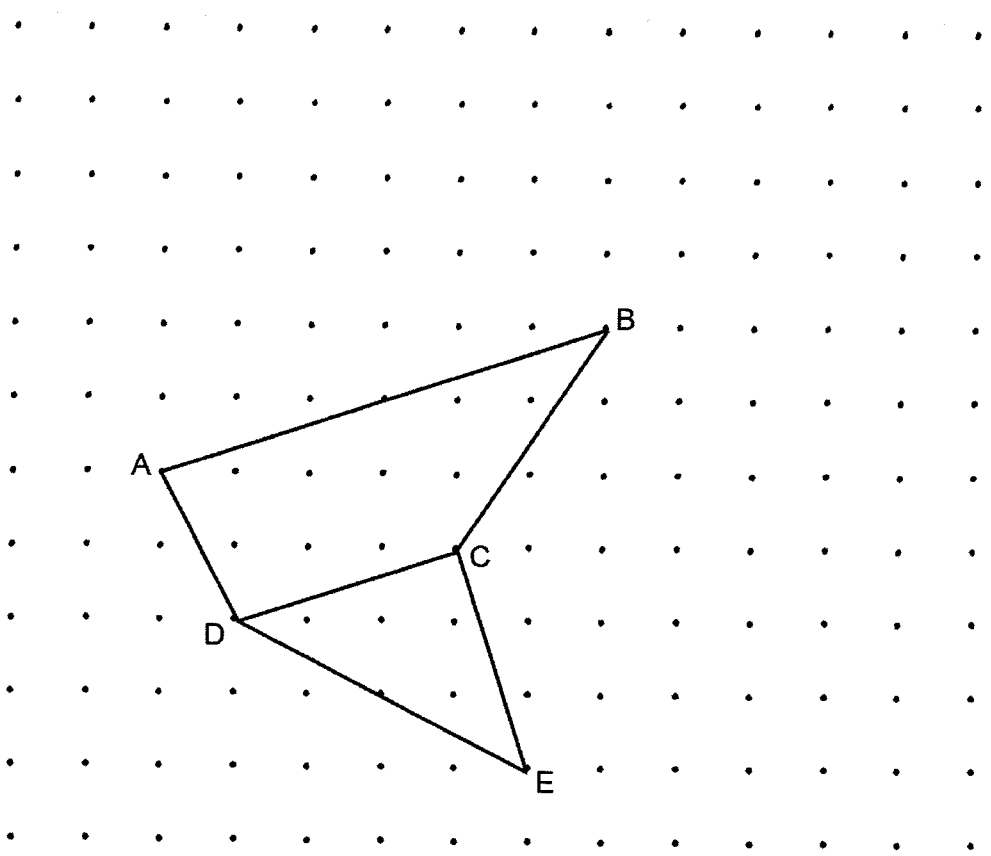
Column A	Column B	Column C	Column D
3	4	5	6
10	9	8	7
11	12	13	14
18	17	16	15
...	...	...	...

In which column will the number 272 appear?

Ans: _____

Do not write in this space

30 The dot grid below shows a trapezium ABCD and a right-angled triangle CDE.



By joining the dots on the grid with straight lines,

(a) draw and label another trapezium BCDX, such that DX is twice as long as BC.

(b) draw and label another triangle CDY, such that it has the same area as triangle CDE. Triangle CDY must not overlap with trapezium ABCD.

End of Paper

METHODIST GIRLS' SCHOOL (PRIMARY)

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END OF YEAR EXAMINATION 2025
PRIMARY 6
MATHEMATICS

PAPER 2

Duration: 1 h 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 : 19 Aug 2025

Parent's Signature: _____

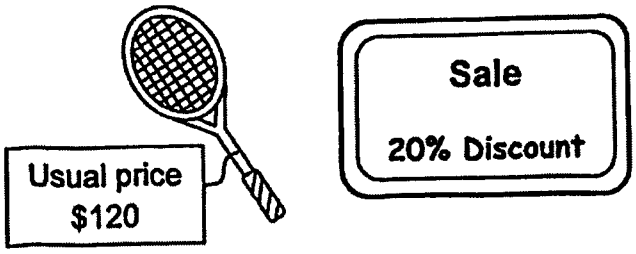
Paper 1 Booklet A	**/ 20**
Paper 1 Booklet B	**/ 25**
Paper 2	**/ 55**
TOTAL	**/ 100**

This booklet consists of **19** 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)

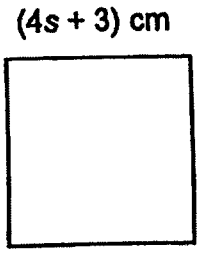
Do not write in this space

1 The usual price of a tennis racket is \$120. During a sale, Joe bought the racket at a discount of 20% How much did Joe pay for the racket?



Ans: \$ _____

2 Judy had a 1-m long metal wire. She used some of it to form a square of sides $(4s + 3)$ cm and had 32 cm of wire left. What is the value of s?



Ans: _____

(Go on to the next page)

3 The sum of three different 3-digit numbers is 405.
Of the three numbers, find the largest possible number.

Ans: _____

4 Participants of a shooting contest must obtain at least a certain score in the first round to qualify for the second round. There were 150 participants in the first round and the table shows the number of participants for each score.

Score	Number of participants
0	28
1	32
2	30
3	23
4	25
5 or more	12

60% of the participants did not qualify for the second round. From the table, what was the lowest score of a participant who qualified for the second round?

Ans: _____

5 The figure below is made up of squares. Shade 3 more squares so that the figure has a line of symmetry.

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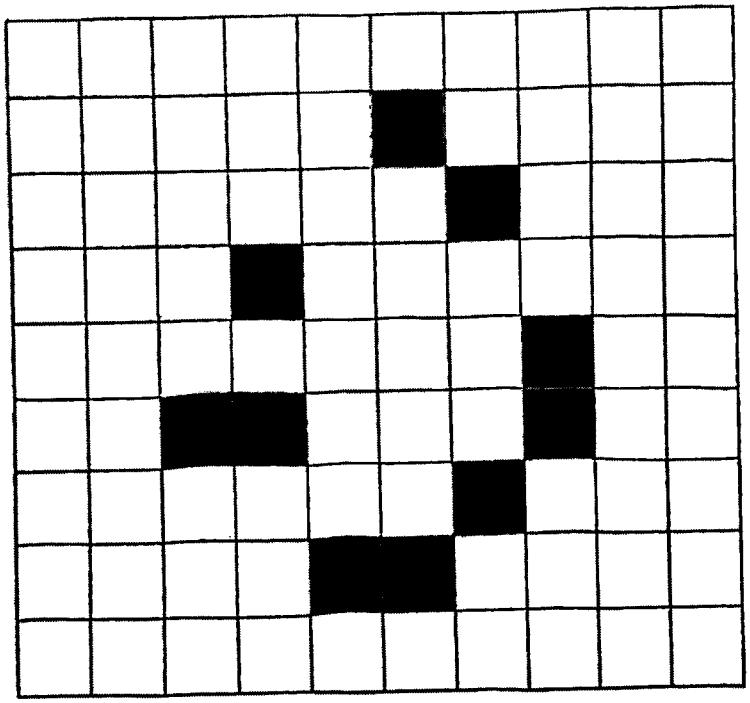


(Go on to the next page)

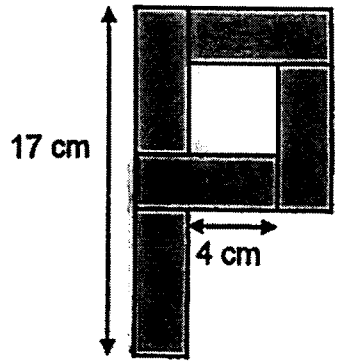
For questions to 6 to 17, show your workings clearly and write your answers in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question. (45 marks)

Do not write in this space

6 Mrs Tan needs 21 pieces of ribbon, each of length 70 cm, to tie some presents. Ribbon is sold in rolls of 4.5 m each. What is the least number of rolls of ribbons that Mrs Tan needs to buy?

Ans: _____ [3]

7 The figure is made up of 5 identical rectangles. Find the area of the figure.



Ans: _____ [3]

(Go on to the next page)

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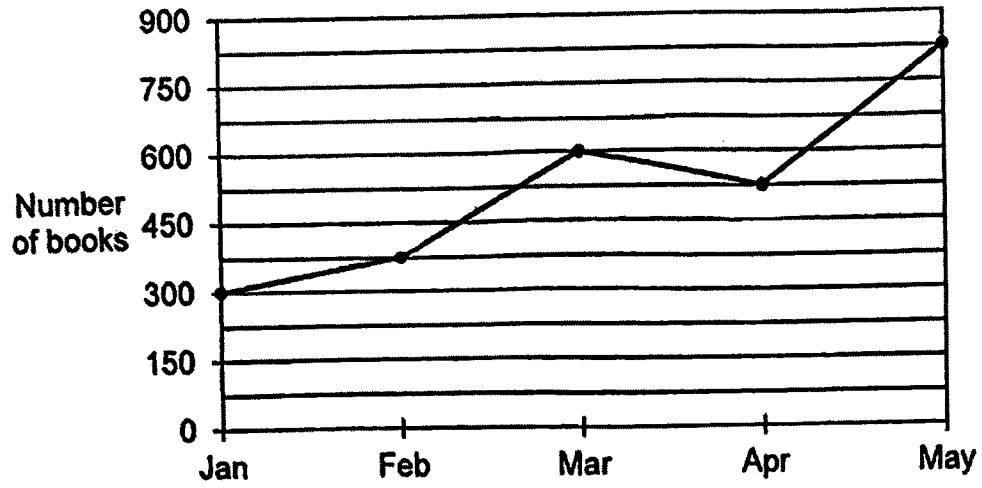
8 The graph below shows the number of books borrowed by the pupils in a school from January to May.



(a) What was the average number of books borrowed per month from January to May?

Ans: (a) _____ [2]

(b) What was the percentage increase in the number of books borrowed from February to March?

Ans: (b) _____ [2]

(Go on to the next page)

9 In the figure, ACDE is a trapezium and AC // ED. AC and FD are straight lines. BG = FG, ∠GDE = 68°, ∠ABD = 71° and ∠BCD = 36°.

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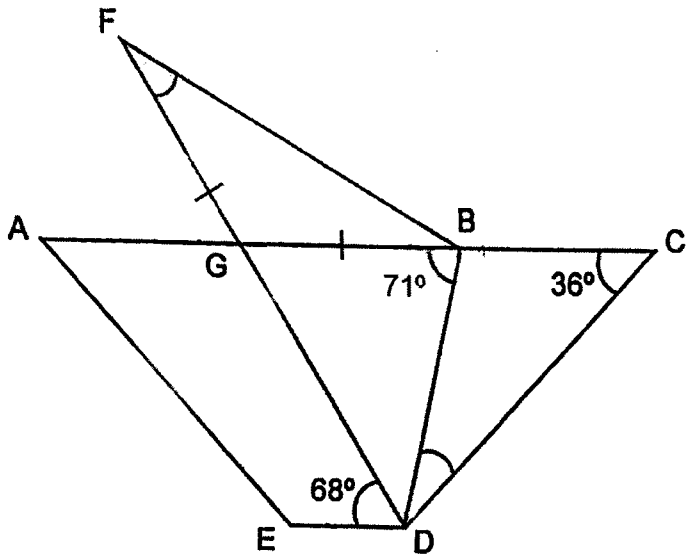

(a) Find ∠BDC.

Ans: (a) _____ [2]

(b) Find ∠BFD.

Ans: (b) _____ [2]

(Go on to the next page)

10 **The bar graph shows the number of four different brands of pens sold at a shop.** 560 pens were sold altogether. **Part of the graph was torn off.**

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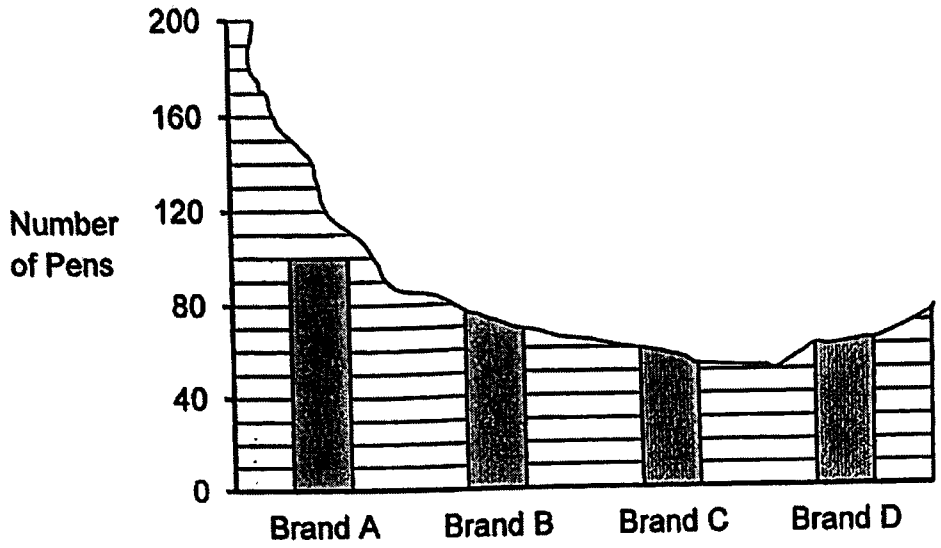


The prices of each brand of pens is shown below.

Brand	Price per pen
A	$2.80
B	$2.20
C	$2.50
D	$1.60

The number of pens sold from Brand C was $\frac{3}{5}$ the number of pens sold from Brand D. The total amount collected from the sales of pens from Brand C and Brand D was $620.

(Go on to the next page)

(a) How many Brand C pens were sold?

Do not write in this space

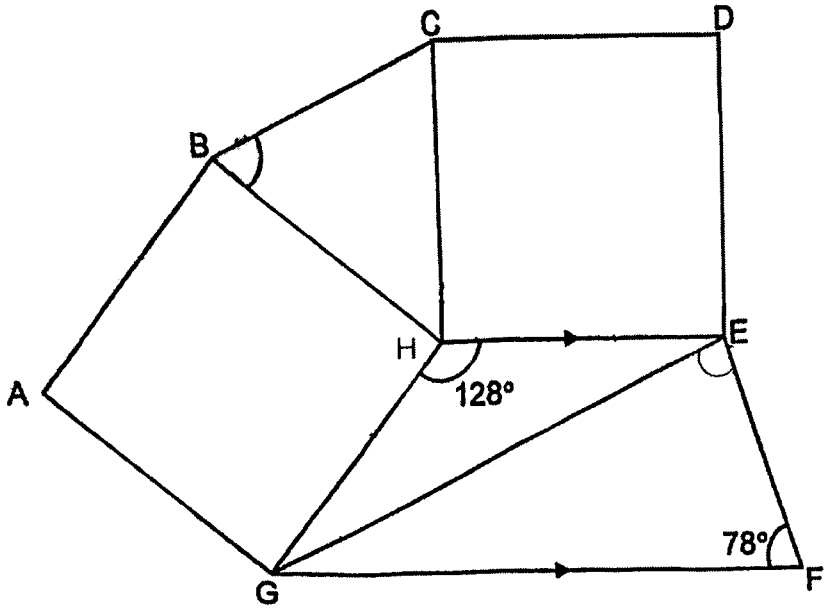
Ans: (a) _____ [3]

(b) How many Brand B pens were sold?

Ans: (b) _____ [2]

11 The figure below is made up of 2 identical squares and 3 triangles. EH is parallel to FG. $\angle EHG = 128°$ and $\angle EFG = 78°$.

Do not write in this space



(a) Find $\angle CBH$.

Ans: (a) _____ [2]

(b) Find $\angle GEF$.

Ans: (b) _____ [2]

12 Rae and Jane took part in a 14km race. Both of them started running at the same time. Rae arrived at the finishing point 10 minutes before Jane who was 1.75km behind her. Jane did not change her speed throughout the race and she completed the race at 1015.

Do not write in this space

(a) What time did both of them start running?

Ans: (a) _____ [2]

(b) What was Rae's average speed for the race in m / min?

Ans: (b) _____ [2]

13 The graphs below show the cost of sending packages to Indonesia for the first 10 kg by 2 courier companies.

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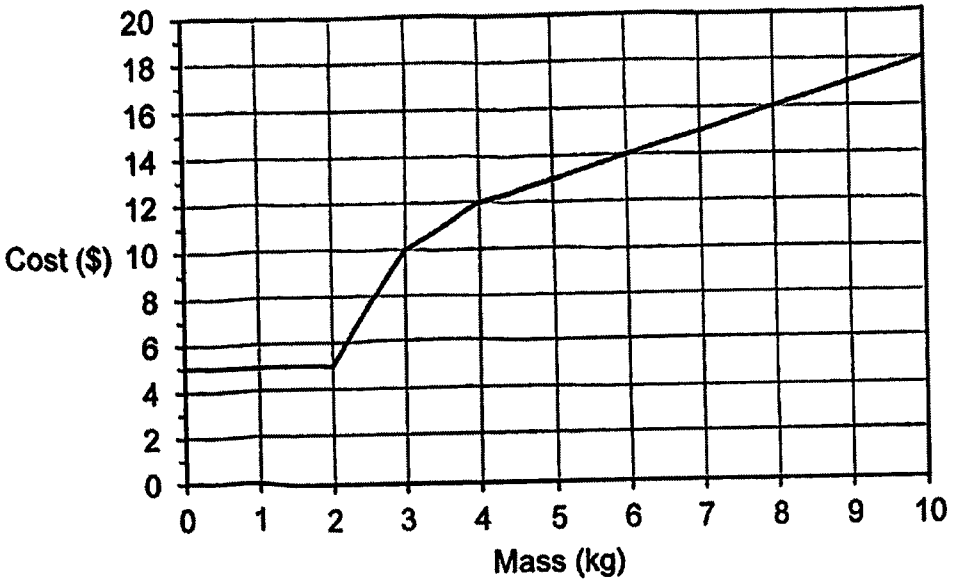
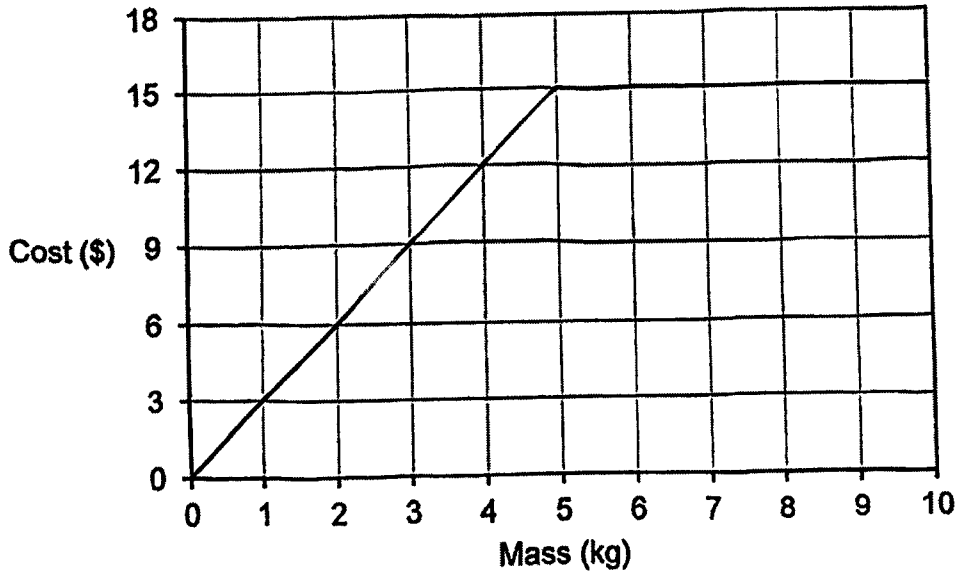
Company A



Company B



(Go on to the next page)

(a) How much does it cost to courier a package for the first 2 kg when using Company A's service?

Do not write in this space

Ans: (a) _____ [1]

(b) Adele used Company B's service and paid $9 for her package. What was the mass of her package?

Ans: (b) _____ [1]

(c) Yanti and Dewi each sent a 8.7-kg package to Indonesia. Yanti used Company A's service while Dewi used Company B's service. What is the difference in the amounts they paid?

Ans: (c) _____ [2]

(Go on to the next page)

14 At a talent show, 23 participants invited either 1,2 or 3 guests. The number of participants who invited 1 guest to those who invited 2 guests was 2 : 1. There were 44 guests altogether. Find the number of participants who invited 3 guests.

Do not write in this space

Ans: _____ [3]

15 Bala had 120 more stamps than Charles in at first.
Each of them gave Ali some of their stamps.
The number of stamps Charles gave Ali was 30% of the stamps Bala had at first. The number of stamps Bala gave to Ali was $\frac{3}{5}$ of the number of stamps Charles had at first. Both Bala and Charles had an equal number of stamps left. How many stamps did Bala have at first?

Do not write in this space

Ans: _____ [3]

16 The water tank below is made up of 3 rectangular cuboids joined together. At first, the tank was filled with 1800 ml of water. Both taps were turned on for 2 minutes. Tap A flowed at 1.2 litres per minute white Tap B flowed at 2 litres per minute.

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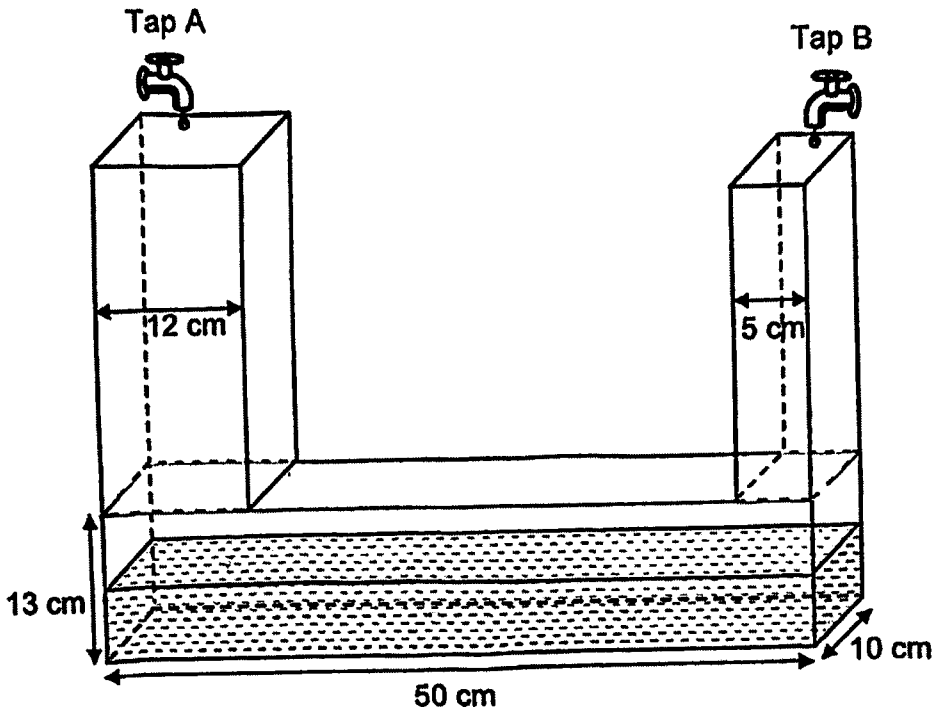

(a) What was the total volume of water in the tank at the end of the 2 minutes?

Ans: (a) _____ [1]

(b) What was the height of the water in the tank in the end?

Do not write in this space

Ans: (b) _____ [3]

(Go on to the next page)

17 Ken built a racetrack for toy cars by using 3 different rectangular pieces and 10 identical curved pieces. A curved piece is as shown in Figure 1. The width of the racetrack is 7 cm.

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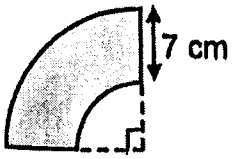
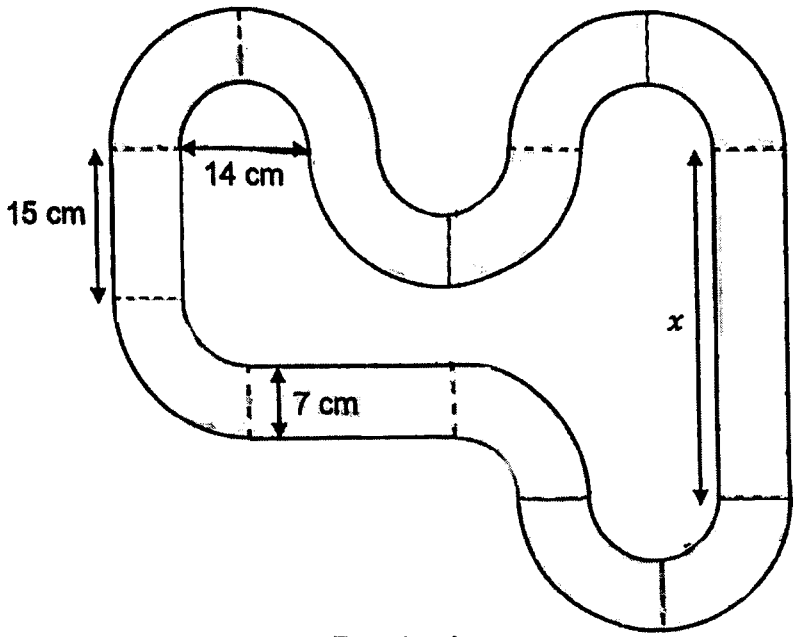


Figure 1



Racetrack

(a) Find the length of x.

Ans: (a) _____ [1]

(b) Find the area of the entire track. (Take $\pi = \frac{22}{7}$)

Ans: (b) _____ [3]

END OF PAPER

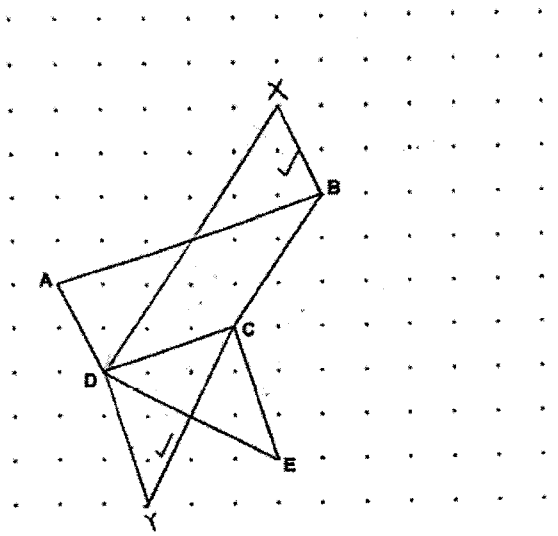
SCHOOL : METHODIST GIRLS' SCHOOL (PRIMARY)
LEVEL : PRIMARY 6
SUBJECT : MATHS
TERM : MGS P6 PRELIM

Paper 1 Booklet A

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

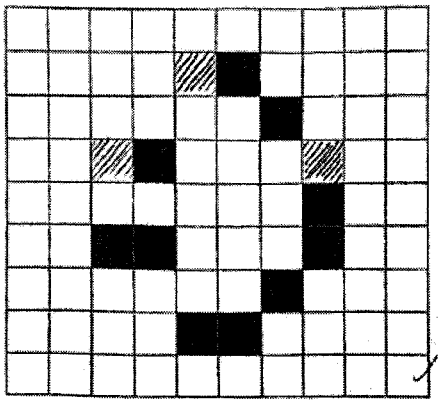
Paper 1 Booklet B

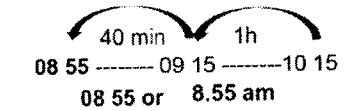
Q16	$9 = \underline{1} \times \underline{9}$ $\quad 18 = \underline{1} \times 18$ $\underline{3} \times 3 \quad\quad\quad 2 \times \underline{9}$ $\underline{3} \times 6$ **Ans:** $\underline{1, 3, 9}$
Q17	$\frac{3402}{20} = 170\frac{1}{10}$
Q18	$63 \div (9-6) + 4 \times 12 = 63 \div 3 + 4 \times 12$ $= 21 + 4 \times 12$ $= 21 + 48$ $= 69$
Q19	$\frac{3}{8} \div \frac{12}{1} = \frac{3}{8} \times \frac{1}{12} = \frac{1}{32}$
Q20	White – 8-4-3 = 8-7 = 1 $\frac{1}{8} = 7$ $\frac{8}{8} = 7 \times 8 = 56$
Q21	10 x 5 = 50 50 x \$8 = \$400 5 x \$10 = \$50 \$400 + \$50 = \$450
Q22	$\angle y = 98° - 20° = 78°$

Q23	1 shaded face – $16cm^2 \div 4$ $= 4\ cm^2$ $\sqrt{4cm^2} = 2cm$ 2cm x 2 = 4cm 2cm x 3 = 6cm 6cm x 4cm x 4cm = $96cm^3$
Q24	180° - 54° - 54° = 72°
Q25	B : R + G R : G 1 : 2 (3) 2 : 3 (5) 5 : 10 (15) 4 : 6 (10) Ans: 5 : 6
Q26	No of sets = 93 ÷ 6 = 15r 3 = 15 + 1 = 16
Q27	Cakes - \$5a - \$2a = \$3a Ans: $\frac{3a}{5}$
Q28	$\frac{1}{2} x\ 8\ x\ 6 = 24$ 24 x 2 = 48 48 ÷ 10 = 4.8 cm
Q29	272 – 2 = 270 270 ÷ 8 = 33 r 6 Ans: Column C
Q30	

SCHOOL : METHODIST GIRLS' SCHOOL (PRIMARY)
LEVEL : PRIMARY 6
SUBJECT : MATHS
TERM : MGS P6 PRELIM

Paper 2

Q1	100% → $120 80% → $120 ÷ 100 x 80 = $96
Q2	4 x (4s + 3) = 100 – 32 16s + 12 = 68 16 s = 68 – 12 16 s = 56 s = 3.5cm
Q3	100 + 101 = 201 405 – 201 = 204 Biggest Possible Number = 204
Q4	60% x 150 = 90 28 + 32 + 30 = 90 Lowest Possible Score = 3
Q5	
Q6	450 ÷ 70 = 6 r 30 cm 21 ÷ 6 = 3 r 3 No of rolls = 3 + 1 = 4
Q7	Breadth = (17cm – 2 x 4cm) ÷ 3 = 3 cm Length = 3cm + 4cm = 7cm Area = (3cm x 7cm) = 21cm² x 5 = 105 cm²
Q8 (a)	(300 + 375 + 600 + 525 + 825) ÷ 5 = 525
Q8 (b)	$\frac{225}{375} \times 100\% = 60\%$

Q9 (a)	∠BDC → 180° - 109° - 36° = 35°
Q9 (b)	∠BFD → (180° - 112°) ÷ 2 = 34°
Q10(a)	Total cost of 1 set of 3 brand C pens and 5 brand D pens = 3 x $2.50 + 5 x $1.60 = $15.50 No. of sets = $620 ÷ $15.50 = 40 No. of brand C pens bought = 40 x 3 =120
Q10(b)	No. of brand D pens bought = 40 x 5 = 200 No. of brand B pens bought = 560 – 200 – 120 – 100 = 140
Q11(a)	∠CBH → (180° - 52°) ÷ 2 = 64°
Q11(b)	180° - 78° = 102° ∠GEF → 102° - 26° = 76°
Q12(a)	Jane's average speed = 1750 m ÷ 10 min = 175 m/ min Time taken by Jane = 14000 ÷ 175 = 80 min = 1 h 20 min  Ans: 8.55am
Q12(b)	Time taken by Rae = 80 min – 10 min = 70 min Rae's average speed = 14 000 m ÷ 70 min = 200 m/ min
Q13(a)	$5
Q13(b)	3kg
Q13(c)	For 8.5 kg package, Cost of package with Company B = $15 Company A Rate per 1kg after 4kg = $1 per kg Cost of package with Company A = $12 + 4.7 x $1 = $16.70 Difference = $16.70 - $15 = $1.70 Company B offers a lower courier charge and the difference is $1.70

Q14

1S : 2S
2 : 1
No. of guests for each set of 3 participants
= 2 + 2 = 4

1G or 2G	3G	Divisible by 3?	23 Total participants
4	40	x	
8	36		6 + 12 = 18
12	32	x	
16	28	x	
20	24		15 + 8 = 23
24	20	x	
28	16	x	
32	12		24 + 4 = 28
36	8	x	
40	4	x	
44	0	x	

Hence, 8 participants invited 3 guests.

Q15

At First	Gave	Left
B: 10u + 120	-6u	4u + 120
C: 10u	-3u – 36	7u - 36

7u – 36 = 4u + 120
3u = 120 + 36
1u = 52
10u = 52 x 10 = 520

No. of stamps Bala had at first
= 520 + 120
= 640

16(a)

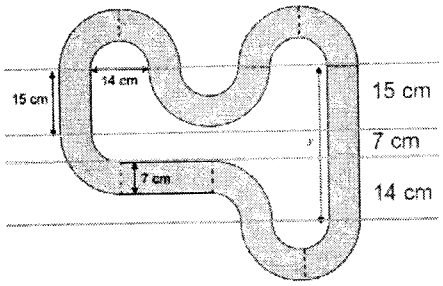
Volume of water from taps A and B
= 2 x (1.2 ℓ + 2 ℓ)
= 6.4 ℓ

Total volume of water at the end of 2 minutes
= 6.4 ℓ + 1.8 ℓ
= 8.2 ℓ

16(b)

Capacity of base cuboid = 50 cm x 10 cm x 13 cm = 6500 cm3
Total base area of 2 side cuboids = 12 x 10 + 5 x 10 = 170 cm2
Volume of water in 2 side cuboids = 8200 cm3 – 6500 cm3 = 1700 cm3
Height of water in 2 side cuboids = 1700 cm3 ÷ 170 cm2 = 10 cm

Total height of water in tank
= 10 cm + 13 cm
= 23 cm

17(a)	Length of X = 15 cm + 14 cm + 7 cm = 36 cm 
17(b)	Area of 3 rectangles = (15 cm + 21 cm + 36 cm) x 7 cm = 504 cm² Radius of big quardant = (14 cm + 7 cm + 7 cm) ÷ 2 = 14 cm Area of 10 big quadrants $= 10 \times \frac{1}{4} \times \frac{22}{7} \times 14\text{ cm} \times 14\text{ cm}$ = 1540 cm² Area of 10 small quadrants $= 10 \times \frac{1}{4} \times \frac{22}{7} \times 7\text{ cm} \times 7\text{ cm}$ = 385 cm² Area of 10 curved pieces = 1540 cm² – 385 cm² = 1155 cm² Total area of track = 504 cm² + 1155 cm² = **1659 cm²**