Rosyth School
End-of-Year Examination 2023
Mathematics
Primary 5
Paper 1

Name: _____ Register No. _____

Class: Pr 5 -_____

Date: 24 October 2023 Parent's Signature: _____

Total Time for Booklets A and B : 1 hour

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) and write your answer in the brackets provided.

All diagrams in this paper are not drawn to scale unless stated otherwise.

(20 marks)

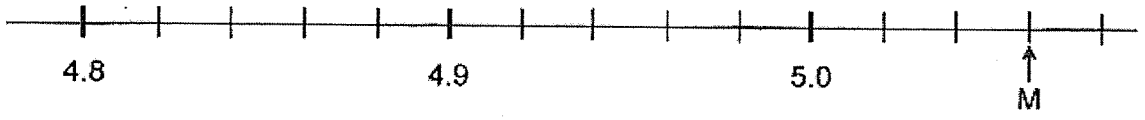
1. What is the value of $33 - (6 + 12) \div 3$?

   (1) 5
   (2) 13
   (3) 27
   (4) 31

2. What is the value of the digit 2 in 10 245?

   (1) 20
   (2) 200
   (3) 2000
   (4) 20 000

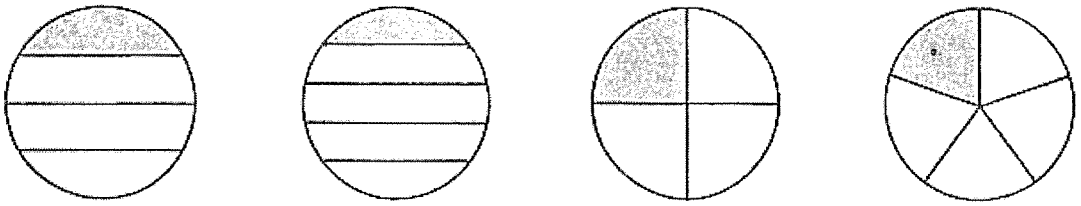
3. In the scale below, what is the value of M?



   (1) 5.3
   (2) 5.6
   (3) 5.03
   (4) 5.06

(Go on to the next page)

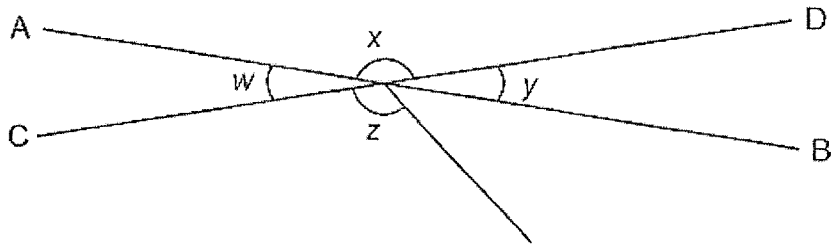
4. The ratio of the shaded area of the circle to the unshaded area of the circle is 1 : 4. Which of the following figures below represents the given ratio?



A B C D

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

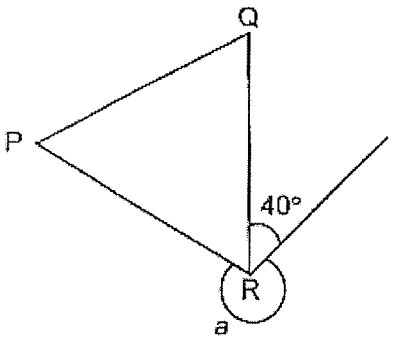
5. In the figure below, AB and CD are straight lines. Which two angles are equal?



(1) ∠x and ∠y
(2) ∠x and ∠z
(3) ∠w and ∠y
(4) ∠w and ∠z

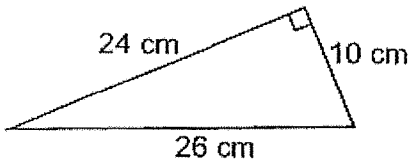
(Go on to the next page)

6. In the figure below, PQR is an equilateral triangle. Find $\angle a$.



(1) 100°
(2) 140°
(3) 260°
(4) 320°

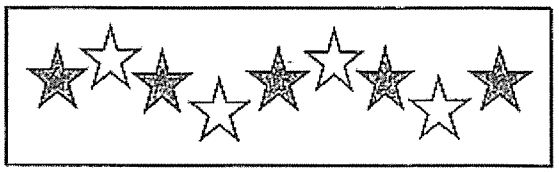
7. The figure below shows a right-angle triangle. Find the area of the triangle.



(1) 120 cm^2
(2) 130 cm^2
(3) 240 cm^2
(4) 312 cm^2

(Go on to the next page)

8. What fraction of the stars are shaded?



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

(2) $\frac{5}{9}$

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

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

9. Jon had 200 stickers. He gave 90 stickers to his friend. What percentage of his stickers did Jon give to his friend?

(1) 10%

(2) 45%

(3) 55%

(4) 90%

10. The total marks obtained by 4 students is 60. What is the average number of marks obtained by the 4 students?

(1) 15

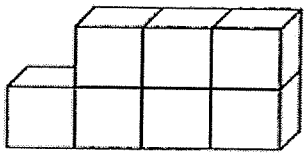
(2) 56

(3) 64

(4) 240

(Go on to the next page)

11. John stacked 7 boxes as shown in the diagram below.



Each box had a mass of 10 kg 8 g. Find the total mass of the 7 boxes.

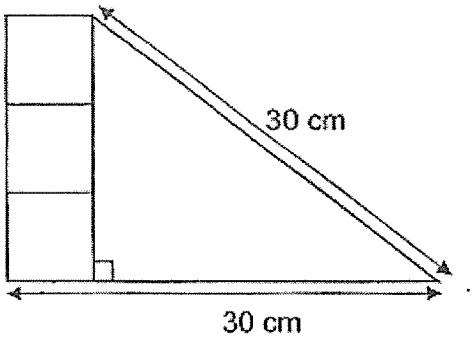
(1) 756 kg
(2) 75.6 kg
(3) 70.56 kg
(4) 70.056 kg

12. Ken saved $\frac{1}{4}$ of his allowance and spent $\frac{3}{5}$ of the remaining allowance on food. He had \$72 left. How much was his allowance?

(1) \$120
(2) \$180
(3) \$240
(4) \$480

(Go on to the next page)

13. The figure below shows 3 identical squares and a triangle. The area of each square is 36 cm^2. Find the area of the figure.



(1) 324 cm^2

(2) 378 cm^2

(3) 468 cm^2

(4) 558 cm^2

14. Matthew had $25 more than Amy. When Amy gave Matthew $20, Matthew had 6 times as much money as Amy. How much money did Amy have at first?

(1) $29

(2) $33

(3) $78

(4) $108

(Go on to the next page)

15. Ben shared a sum of money equally with Carla. To buy a present for their mother, Ben spent $\frac{1}{6}$ of his money and Carla spent \$45 of her money. In the end, $\frac{3}{4}$ of the original sum of money was left. What was the original sum of money shared by Ben and Carla?

(1) \$135
(2) \$180
(3) \$270
(4) \$540

(Go on to Booklet B)

Rosyth School
End-of-Year Examination 2023
Mathematics
Primary 5
Paper 1

Name: _____ Register No. _____

Class: Pr 5 - _____

Date: 24 October 2023 Parent's Signature: _____

Total Time for Booklets A and B : 1 hour

BOOKLET B

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. Use a dark blue or black ballpoint pen to write your answers in the space provided for each question.
5. Do not use correction fluid/tape or highlighters.
6. You are **not** allowed to use a calculator.

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. Express $3\frac{7}{25}$ as a decimal.

Ans: _____

17. Find the value of 24×400.

Ans: _____

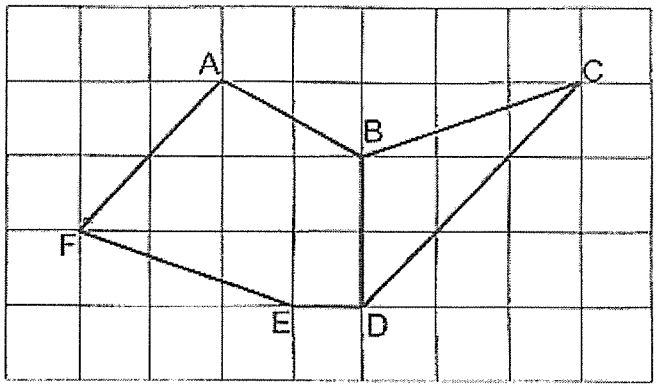
18. Find the value of $\frac{1}{2} \times \frac{5}{8}$.

Ans: _____

(Go on to the next page)

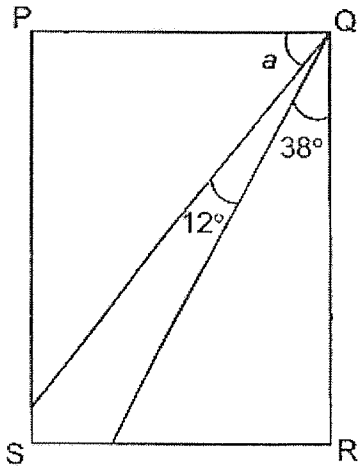
19. Which line in the square grid is parallel to AF?

Do not write in this space



Ans: _____

20. In the figure below, PQRS is a rectangle. Find $\angle a$.



Ans: _____ °

(Go on to the next page)

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.

Do not write in this space

All diagrams in this paper are not drawn to scale unless stated otherwise.

(20 marks)

21. Two cups and a jug contain 2.33 litres of water. The volume of water in each cup is the same. The volume of water in one cup is 1.61 litres less than the volume of water in the jug. Find the volume of water in each cup.

Ans: _____ litres

22. Jill had $400. She spent 20% of her money on books. How much money did Jill spend on books?

Ans: $_____

(Go on to the next page)

23. The table below shows the number of blue pens and red pens in 4 boxes.

Do not write in this space

Box	Number of pens	
	Red	Blue
A	17	12
B	10	18
C	13	12
D	11	15

(a) Which coloured pen has a greater number?
Circle the correct answer.

Ans: **Red / Blue**

(b) All the pens are repacked such that each box contained the same number of pens. How many pens are there in each box now?

Ans: _____

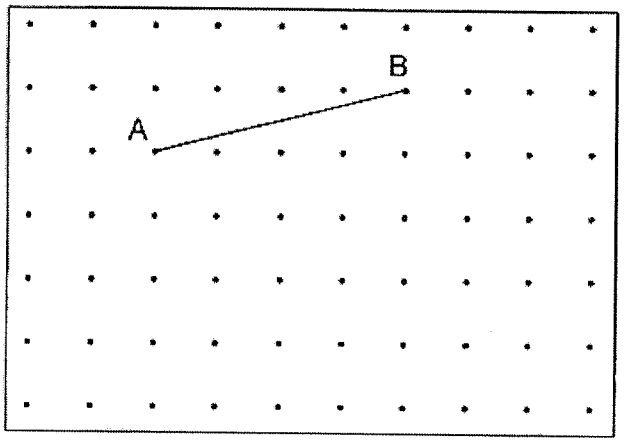
(Go on to the next page)

24. A box of toys was shared equally among 10 children. 3 of them gave all of their toys to the rest of the children. As a result, the rest of the children received 6 more toys each. How many toys were there in the box?

Do not write in this space

Ans: _____

25. The figure below shows a line AB drawn on a grid.



ABX is an isosceles triangle. ∠ABX is 90° and AB = BX. Draw and label triangle ABX on the grid above.

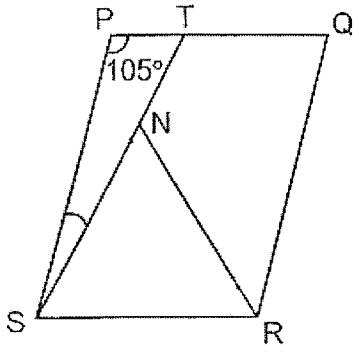
(Go on to the next page)

26. There are 248 marbles in a box. The ratio of the number of red marbles to the number of blue marbles is 3 : 1. The rest of the 60 marbles are green. How many blue marbles are there in the box?

Do not write in this space

Ans: _____

27. PQRS is a parallelogram and NRS is an equilateral triangle. ST is a straight line. Find ∠PST.



Ans: _____ °

(Go on to the next page)

28. The following diagram shows triangles P, Q and R on a grid.

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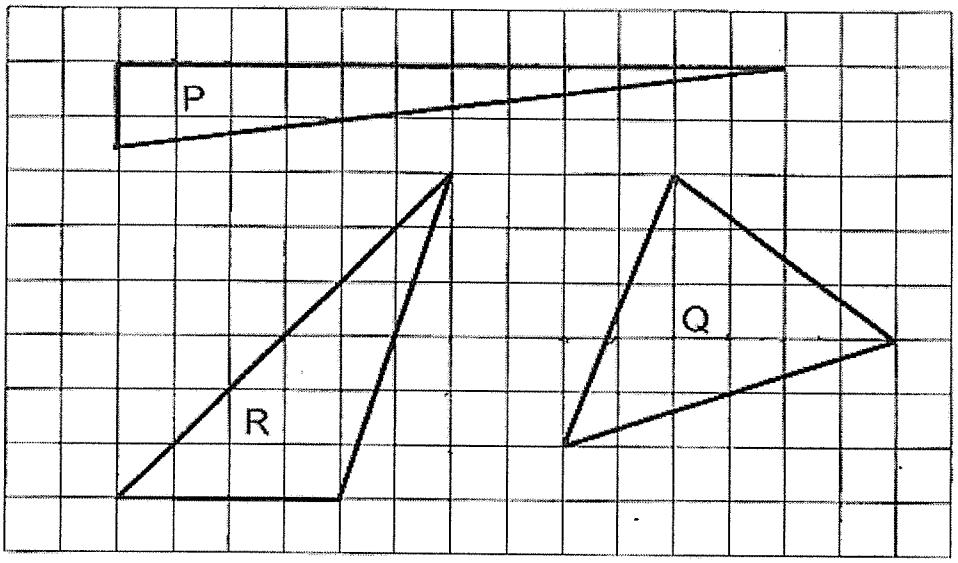

Arrange the triangles from the smallest area to the biggest area.

Ans: _____, _____, _____
smallest area — biggest area

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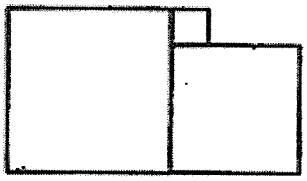
29. The figure below is made up of squares. The area of the smallest square is 4 cm^2. The area of the biggest square is 81 cm^2. Find the area of the figure.

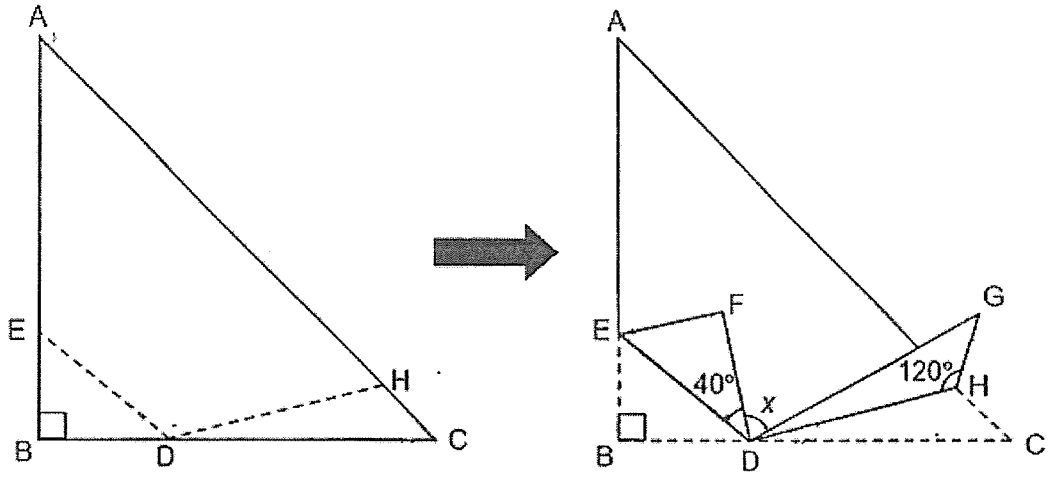


Ans: _____ cm^2

(Go on to the next page)

30. Ron cut a piece of paper into the shape of an isosceles right-angled triangle ABC, where AB = BC. He folded the triangle along the dotted lines DE & DH as shown below. Find $\angle x$.

Do not write in this space



Ans: _____ °

End of Paper
Have you checked your work?

Rosyth School
End-of-Year Examination 2023
Mathematics
Primary 5
Paper 2

Name: _____ Register No. _____

Class: Pr 5 - _____

Date: 24 October 2023 Parent's Signature: _____

Time: 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. Use a dark blue or black ballpoint pen to write your answer in the space provided for each question.
5. Do not use correction fluid/tape or highlighters.
6. The use of an approved calculator is allowed.

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**	

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

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

(10 marks)

All diagrams in this paper are not drawn to scale unless stated otherwise.

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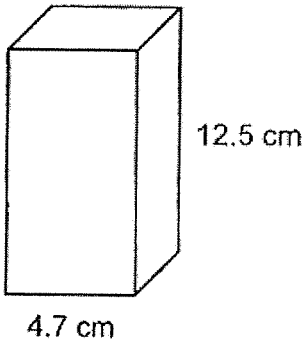
1. A solid cuboid of height 12.5 cm has a square base of side 4.7 cm. What is its volume?



Ans: _____ cm^3

2. The table below shows the postal charges for sending a letter to Indonesia.

Mass Step	Charges
First 15 g	\$0.55
Every additional 5 g	\$0.10

Madeline sent a letter weighing 37 g to Indonesia. How much did she pay in total?

Ans: \$_____

(Go on to the next page)

3. The price of one cookie from a bakery is $1.80. When a customer buys 3 cookies, he will receive one more for free. Ben paid $39.60 for his cookies. How many cookies did Ben receive altogether ?

Do not write in this space

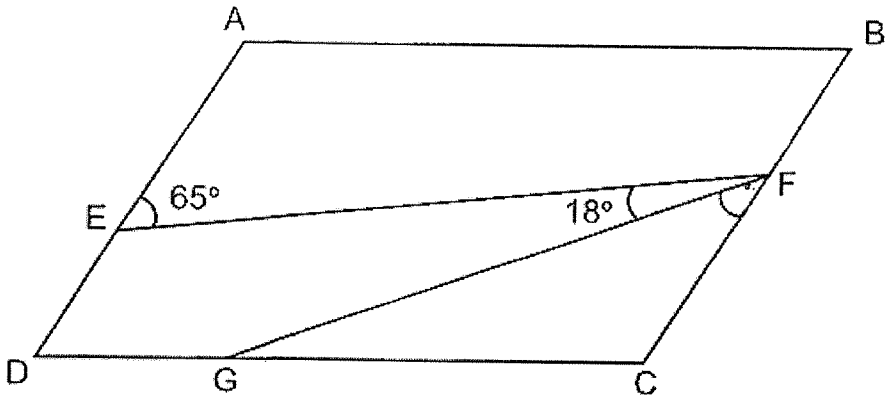
Ans: _____

4. Benny scored an average of 36 points for three games. How many points must he score in the fourth game if he wants to get an average score of 40.7 points?

Ans: _____

(Go on to the next page)

5. ABCD is a parallelogram. Find ∠CFG.



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Ans: _____ °

(Go on to the next page)

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)

Do not write in this space

All diagrams in this paper are not drawn to scale unless stated otherwise.

6. A table and a cupboard cost \$1345 altogether. $\frac{1}{3}$ of the cost of the table was \$75 more than $\frac{1}{4}$ of the cost of the cupboard. How much more did the table cost than the cupboard?

Ans: _____ [3]

(Go on to the next page)

7. ABC is a triangle. EC and BF are straight lines and DC = BC. Find ∠BAC.

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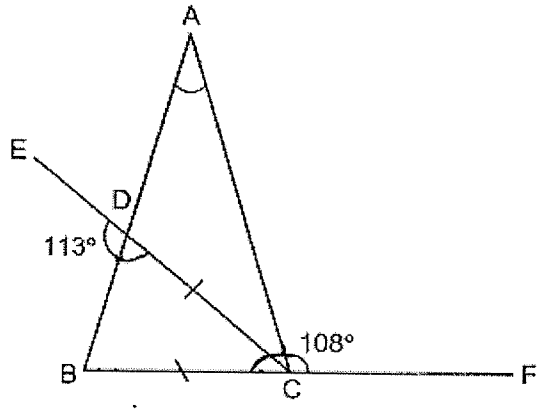

Ans: _____ [3]

8. Anthony made some pies and muffins. He sold each pie at $7 and each muffin at $3. The ratio of the number of pies sold to the number of muffins sold is 1 : 8. Anthony collected $589 altogether. How many pies did he sell?

Ans: _____ [3]

(Go on to the next page)

9. The figure shows two stacks of identical paper cups. There are 5 cups in the shorter stack and 13 cups in the longer one.

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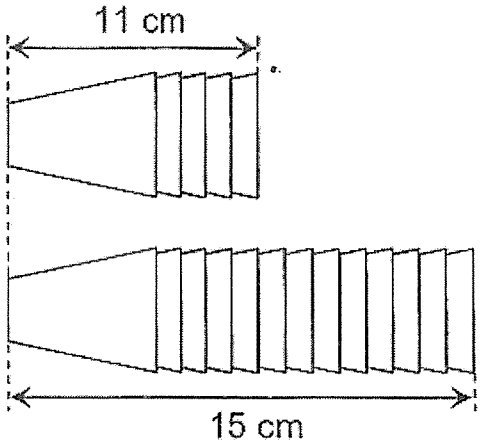
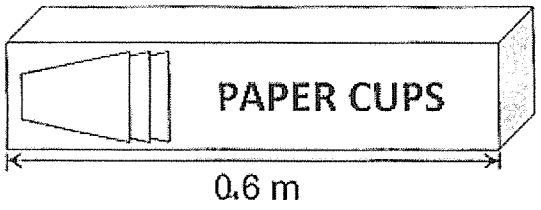
The length of the shorter stack is 11 cm and the length of the longer stack is 15 cm.



Ricky wants to pack the paper cups as a single stack into a box 0.6 m long. What is the most number of paper cups that he can pack into the box?

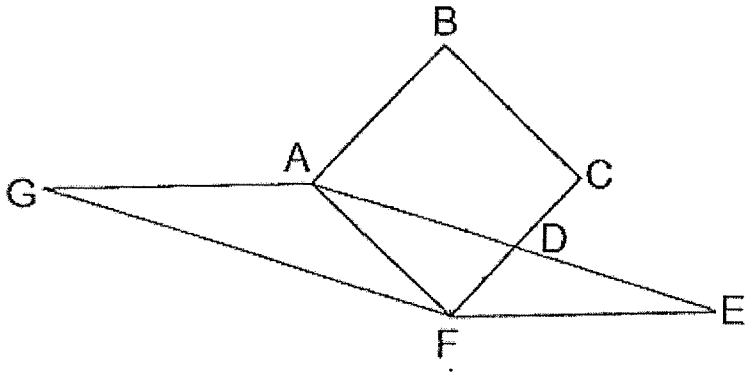


Ans: _____ [3]

(Go on to the next page)

10. The figure below is made up of a square ABCF of side 16 cm and 2 identical triangles AFE and AFG. CD = DF and AD = DE. Find the area of the figure.

Do not write in this space



Ans: _____ [3]

(Go on to the next page)

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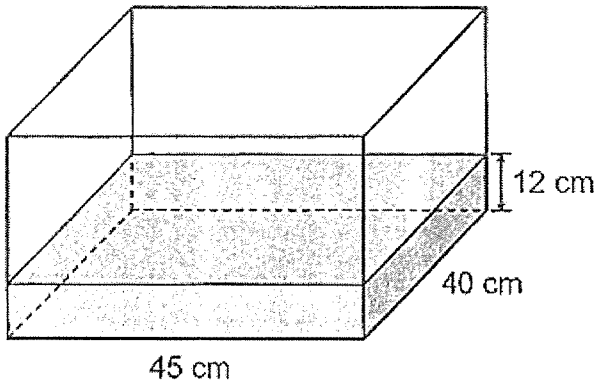
11. Mike had a rectangular tank 45 cm long and 40 cm wide. It was $\frac{3}{8}$ filled with water. The height of the water level in the tank was 12 cm.



(a) How many more litres of water were needed to fill the tank completely?

Ans: (a) _____ [2]

(b) Mike filled the tank to the brim. He used all the water to fill some bottles without spilling. The capacity of each bottle was 350 ml. What was the least number of such bottles needed to hold all the water?

Ans: (b) _____ [2]

(Go on to the next page)

12. 3 identicals football cost as much as 2 identical basketballs. Mr Chai bought 5 such footballs and 3 such basketballs at $532. What is the total cost of 1 football and 1 basketball?

Do not write in this space

Ans: _____ [4]

(Go on to the next page)

13. Genna bought some shoes at an average price of $54. She then bought another 3 pairs of shoes at $102 each and the average price became $72. How many pairs of shoes did she buy altogether?

Do not write in this space

Ans: _____ [4]

(Go on to the next page)

14. Sandy bought an equal number of muffins and tarts. The muffins were sold at 4 for $3 and the tarts were sold at 7 for $5 . She paid a total of $164 for all the muffins and tarts. How many muffins and tarts did she buy altogether?

Do not write in this space

Ans: _____ [5]

(Go on to the next page)

15. Mr Chandran bought a television that cost $1320 before a discount of 30%.

Do not write in this space

(a) Find the amount of discount given for the television.

Ans: (a) _____ [1]

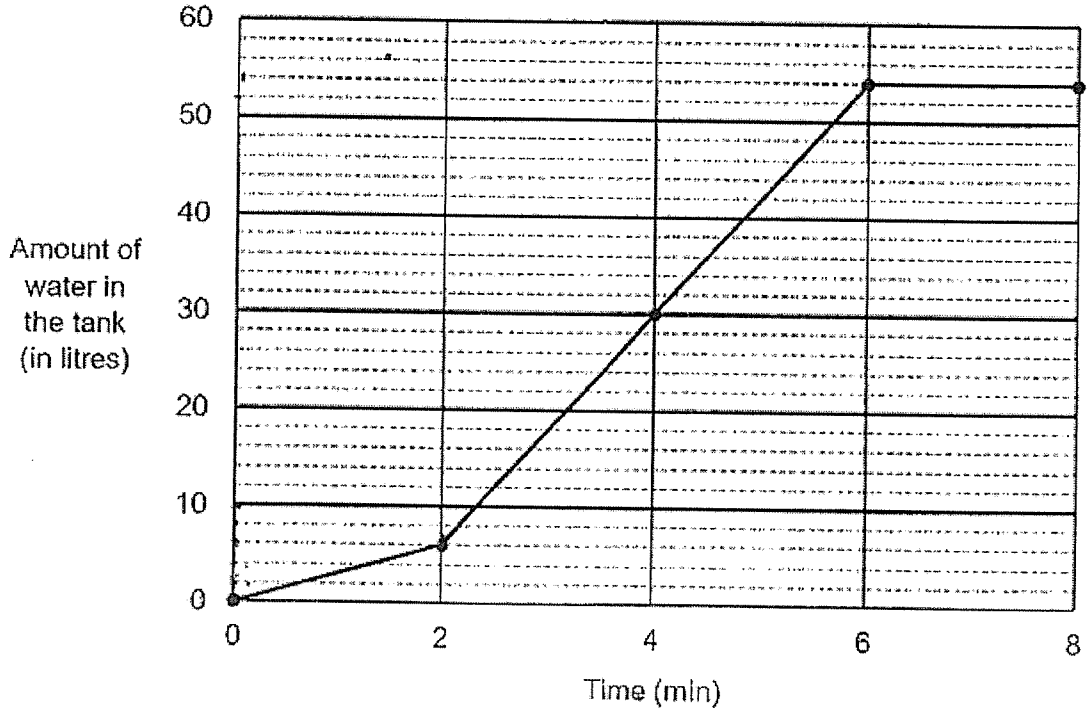
(b) Mr Chandran paid $1722 for a laptop. The total discount for the television and the laptop was $642. What was the percentage discount given for the laptop?

Ans: (b) _____ [3]

(Go on to the next page)

16. An empty tank was filled water using two taps, Tap A and Tap B . Only Tap A was turned on for the first 2 minutes to add water in. After 2 minutes, both Tap A and Tap B were turned on to fill water into the tank until it was completely filled. The graph below shows the volume of water in the tank over a period of 8 minutes.

Do not write in this space



(a) What fraction of the tank was filled with water by the end of the first 2 minutes?

Ans: (a) _____ [1]

(Go on to the next page)

Do not write in this space

16. (b) In one minute, how many litres of water flowed out of Tap B?

Ans: (b) _____ [3]

(Go on to the next page)

17. Alan had some magnets and stickers. He gave $\frac{3}{4}$ of all the items away. $\frac{1}{4}$ of the items given away were magnets. $\frac{2}{3}$ of the items left were stickers. The number of magnets given away was 80 more than the magnets left.

Do not write in this space

(a) What fraction of the total number of items were magnets left?

Ans: (a) _____ [2]

(b) Find the total number of magnets and stickers that Alan had at first.

Ans: (b) _____ [3]

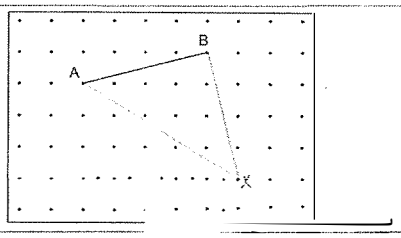
End of paper
Have you checked your work?

SCHOOL : ROSYTH SCHOOL
LEVEL : PRIMARY 5
SUBJECT : MATHEMATICS
TERM : 2023 SA2

PAPER 1 (BOOKLET A)

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

PAPER 1 (BOOKLET B)

Q16	3.28
Q17	9600
Q18	$\frac{5}{16}$
Q19	CD
Q20	40°
Q21	0.24 ℓ
Q22	$80
Q23a	Blue
Q23b	27
Q24	140
Q25	
Q26	47
Q27	15°
Q28	P, R, Q
Q29	134 cm^2
Q30	70°

Q1	Vol = 4.7 x 4.7 x 12.5 = 276.125cm^3
Q2	Total paid = \$0.55 + (\$0.10 x 5) = \$1.05
Q3	Price for 4 cookies (Buy 3 get 1 free) = \$1.80 x 3 = \$5.40 \$39.6 ÷ %5.4 = 7 r \$1.8 \$1.8 can buy 1 cookie Total cookies = 4 x 7 + 1 = 29
Q4	Total for 3 games = 36 x 3 = 108 Total for 4 games = 40.7 x 4 = 162.8 Score for 4th game = 162.8 – 108 = 54.8
Q5	EFB = 180 – 65 = 115° CFG = 180 – 41 – 90 = 49°
Q6	7u = \$1345 – (\$75 x 3) = \$1120 1u = \$160 3u = \$480 Cost of table = 480 + 255 = \$705 Cost of cupboard = 160 x 4 = \$640 Difference in cost = 705 – 640 = \$65
Q7	BDC = 180 – 113 = 67° DBC = 67° BCD = 180 – (2 x 67) = 46° ACD = 180 – 108 – 46 = 26° BDC = 180 – 67 – 26 – 46 = 41°
Q8	Cost of 1 pie and 8 muffins = \$7 + (\$3 x 8) = \$31 No of groups = \$589 ÷ \$31 = 19
Q9	Let u be the stacked extra cup height 8u = 4cm 1u = 0.5cm 11cm = 4u – length of full cup height Length of full cut height = 11cm – (4 x 0.5cm) = 9cm 60cm – 9 cm = 51cm 51cm ÷ 0.5cm = 102 Total cups = 102 + 1 = 103
Q10	Area of AFD = 0.25 x 16 x 16 = 64cm^2 Area of AFE = 64 x 2 = 128cm^2 Area of AGF = 128cm^2 Total area = (128 x 2) + (16 x 16) - 64 = 448cm^2

Q11a	$\frac{3}{8}$ of height = 12 cm $\frac{5}{8}$ of height = (12 ÷ 3) x 5 = 20 cm Amt of water needed to fill tank fully = 20 cm x 45 cm x 40 cm = **36 ℓ**
Q11b	Total capacity of tank = 36 ℓ + (12 x 45 x 40) = 57.6 ℓ No. of full bottles = 57600 ml ÷ 350 ml = 164 R 200 ml Total no. of bottles needed = 164 + 1 = **165**
Q12	1 basketball (B) = 1.5 footballs (F) 5F + 3B = 5F + 4.5F = 9.5F 9.5F = $532 1F = $532 ÷ 9.5 = $56 1B = $56 X 1.5 = $84 1F + 1B = $56 + $84 = **$140**
Q13	Total amount over new average = 3 x $102 - (3 x $72) = $90 Extra $90 needs to be compensated by amount lesser than new average Difference b/w old and new average = $72 - $54 = $18 No. of pairs of shoes under new average cost = $90 ÷ $18 = 5 Total pairs = 3 + 5 = **8**
Q14	LCM of 4 & 7 = 28 Group 28 muffins and 28 tarts as 1 group Cost of 1 group = 7 x $3 + 4 x $5 = $41 No. of groups = $164 ÷ $41 = 4 Total bought = 4 (28 + 28) = **224**
Q15a	100% → $1320 30% → $1320 x 0.3 = **$396**
Q15b	Laptop discount = $642 - $396 = $246 % discount = $\frac{\text{change}}{\text{original}} = \frac{\$246}{(\$246+\$1722)}$ = **12.5%**
Q16a	$\frac{\mathbf{1}}{\mathbf{9}}$
Q16b	Rate of A/min = 3 ℓ Total rate/min = 12 ℓ Rate of B/min = 12 ℓ - 3 ℓ = **9 ℓ**
Q17a	Fraction of magnets left = $\frac{1}{4} \times \frac{1}{3} = \frac{\mathbf{1}}{\mathbf{12}}$
Q17b	Fraction of magnets given away = $\frac{3}{4} \times \frac{1}{4} = \frac{3}{16}$ Diff. in magnets given away & left = $\frac{3}{16} - \frac{1}{12} = \frac{5}{48}$ 5u = 80 1u = 16 48u = **768**