RED SWASTIKA SCHOOL

RED SWASTIKA SCHOOL

2026 PRELIMINARY EXAMINATION

MATHEMATICS
PAPER 1

Name : _____

Class : Primary 6 / _____ **(Teacher:** _____ **)**

Date : 24 August 2026

BOOKLET A

18 Questions
26 Marks
Duration of Paper 1 (Booklets A & B): 1 hour 10 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 booklet, you should have the following:
   (a) Page 1 to Page 8
   (b) Questions 1 to 18
6. You are not allowed to use a calculator.

Questions 1 to 10 carry 1 mark each. Questions 11 to 18 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.

(26 marks)

---

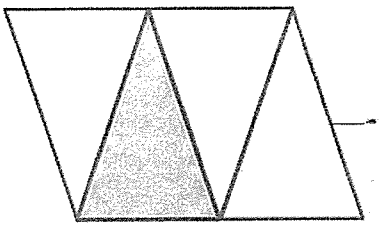
1 What is the value of the digit 2 in 20 354?

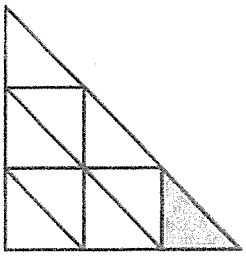
(1) 20
(2) 200
(3) 2000
(4) 20 000

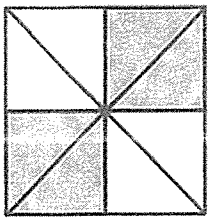
2 Express 5.08 as a mixed number in the simplest form.

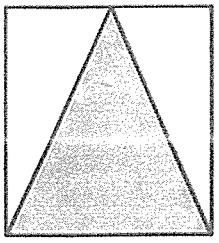
(1) $5\frac{8}{10}$
(2) $5\frac{8}{100}$
(3) $5\frac{4}{5}$
(4) $5\frac{2}{25}$

3 Which of the following shows $\frac{1}{4}$ of the figure shaded?

(1) 

(2) 

(3) 

(4) 

4 Arrange the decimals 0.8, 0.88, 0.808. from the largest to the smallest.

	Largest				Smallest
(1)	0.8	,	0.808	,	0.88
(2)	0.88	,	0.808	,	0.8
(3)	0.88	,	0.8	,	0.808
(4)	0.808	,	0.88	,	0.8

5 Which of the following is likely the mass of 10 fifty-cent coins?

(1) 7 g

(2) 70 g

(3) 700 g

(4) 7000 g

6 There are 6 cans of drinks in a carton. Mr Kumar bought w cartons of drinks. How many cans of drinks did he buy? Give your answer in terms of w.

(1) $6 + w$

(2) $6w$

(3) $w - 6$

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

7 What is the missing number in the box?

$$5\frac{3}{4} = \frac{\square}{4}$$

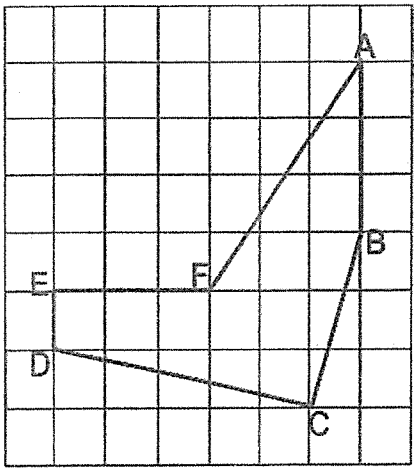
(1) 17

(2) 19

(3) 20

(4) 23

8 Which pair of lines are parallel to each other?



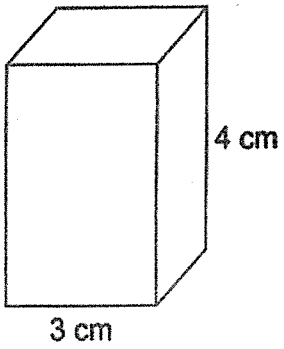
(1) AB and DE

(2) AF and BC

(3) EF and DE

(4) EF and CD

9 The solid cuboid shown below has a square base of 3 cm and a height of 4 cm. What is its volume?



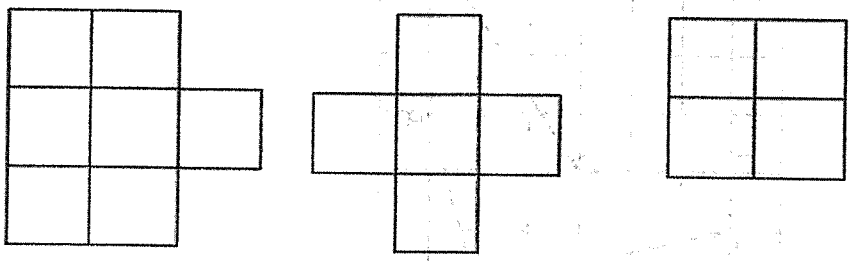
(1) 12 cm^3

(2) 27 cm^3

(3) 36 cm^3

(4) 48 cm^3

10 Figures A, B and C, shown below, are made up of some identical squares.

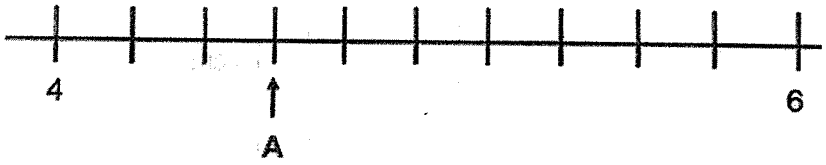


A B C

Which of the figure(s) has / have at least 2 lines of symmetry?

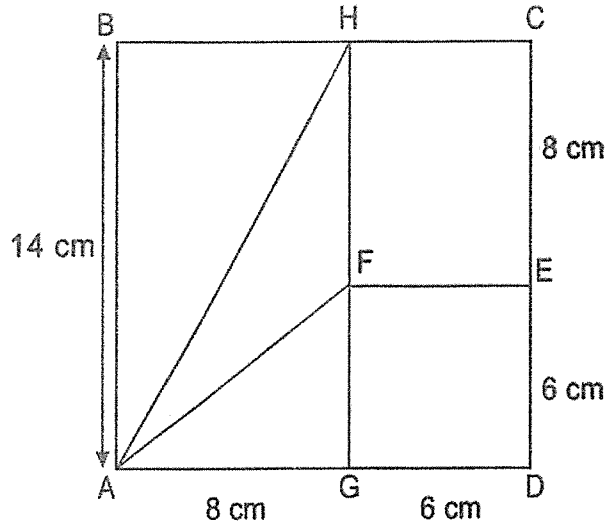
(1) B only
(2) A and B only
(3) B and C only
(4) A, B and C

11 In the scale below, what is the value of A?



(1) 4.30
(2) 4.60
(3) 4.75
(4) 4.80

12 In the figure, ABCD and DEFG are squares.

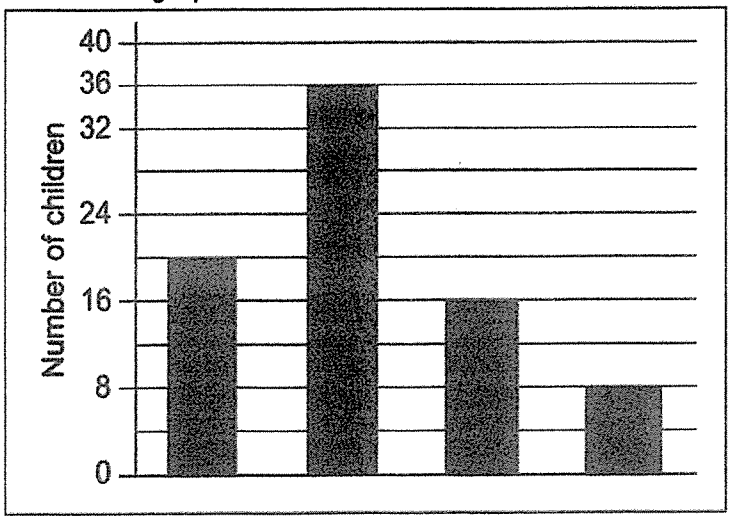


Find the area of triangle AFH.

(1) 24 cm^2
(2) 32 cm^2
(3) 48 cm^2
(4) 56 cm^2

13 A survey was carried out to find out the favourite fruit of a group of students. The table and bar graph show the favourite fruit chosen by the children. The fruit names are missing from the bar graph.

Fruit	Percentage of children
Apple	10%
Pear	20%
Banana	25%
Kiwi	45%



Find the total number of children who chose kiwi and pear as their favourite fruit.

(1) 24
(2) 28
(3) 36
(4) 52

14 The table below shows the schedule of a bus service operating between the bus interchange and the airport.

Time bus leaves bus interchange	Time bus reaches airport
7:30 am	8:15 am
7:45 am	8:30 am
8:15 am	9:00 am
8:35 am	9:20 am
9:15 am	10:00 am

Mrs Chen misses the 7:45 am bus by 40 minutes. What is the earliest time she can reach the airport by bus?

(1) 8:30 am

(2) 8:35 am

(3) 9:00 am

(4) 9:20 am

15 The average mass of 5 bags of rice is 14 kg. Four of the bags of rice weigh 10 kg, 8 kg, 6 kg, and 5 kg. What is the mass of the 5th bag of rice?

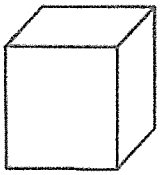
(1) 29 kg

(2) 41 kg

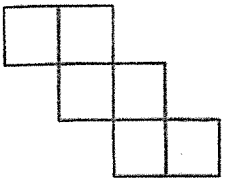
(3) 56 kg

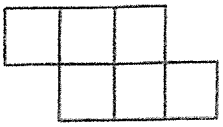
(4) 70 kg

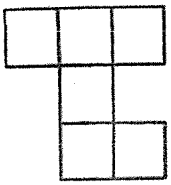
16 The figure below shows a cube.

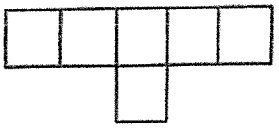


Which of the following is a net of the cube?

(1) 

(2) 

(3) 

(4) 

17 A repeated pattern is formed using the numbers 0 and 2. The first 17 numbers are given below.

2 2 0 2 0 2 2 0 2 0 2 2 0 2 0 2

1st 17th

What is the sum of the first 62 numbers?

(1) 72

(2) 74

(3) 76

(4) 78

18 A rectangular piece of paper measures 20 cm by 14 cm was folded once along the dotted line XY, as shown in figure A. After folding, a square of side 6 cm was cut out and removed, as shown in figure B. The paper was then unfolded.

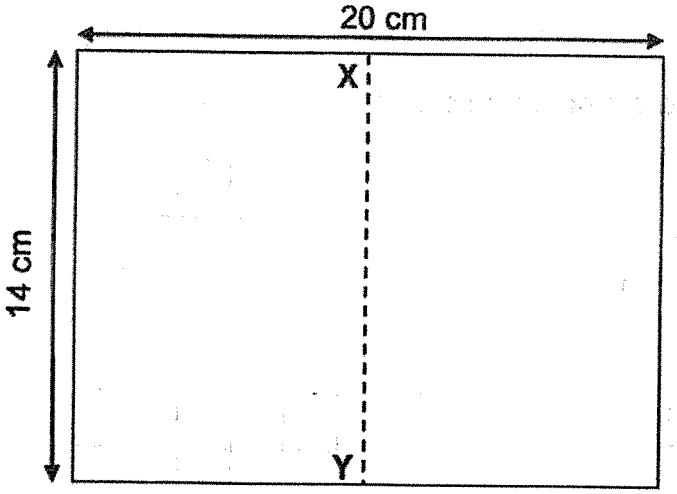


Figure A

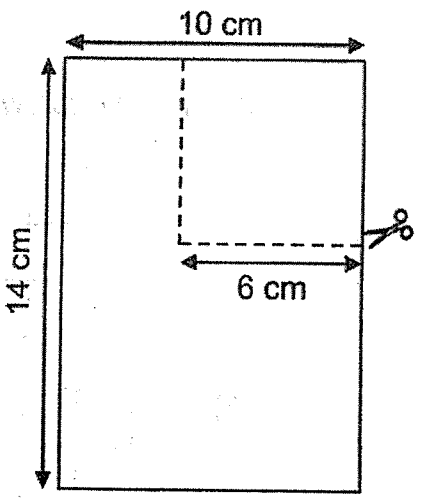


Figure B

What is the area of the remaining piece of paper after the paper was unfolded?

(1) 140 cm^2

(2) 208 cm^2

(3) 244 cm^2

(4) 280 cm^2

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2026 PRELIMINARY EXAMINATION

MATHEMATICS
PAPER 1

Name : _____

Class : Primary 6 / _____ **(Teacher:** _____

Date : 24 August 2026

BOOKLET B

12 Questions
24 Marks

In this booklet, you should have the following:
(a) Page 9 to Page 15
(b) Questions 19 to 30

MARKS

	OBTAINED	POSSIBLE
BOOKLET A		26
BOOKLET B		24
TOTAL		50

Parent's Signature : _____

Questions **19** 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.

(24 marks)

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19 **(a)** Round 15 745 to the nearest hundred.

Ans: (a)_____

(b) What is the value of $64 - (9 + 7) \div 4 \times 2$?

Ans: (b)_____

---

20 A hiking trail is 4 km long. During a hike, Mia walked $\frac{3}{7}$ of the trail.

How far did Mia walk? Express your answer as a mixed number in its simplest form.

Ans: _____ km

4

21 (a) Find the value of 15 900 ÷ 60.

Ans: (a)_____

(b) Find the value of 0.35 × 90.

Ans: (b)_____

2

22 Find the value of the following when $y = 3$.

(a) $17 + 2y$

Ans: (a)_____

(b) $y - \frac{4}{9}$

Ans: (b)_____

---

23 **(a)** Find the value of $\frac{4}{9} \div 12$. Give your answer as a fraction.

Ans: (a)_____

(b) Write a fraction that has a value between $\frac{1}{3}$ and $\frac{2}{3}$.

Ans: (b)_____

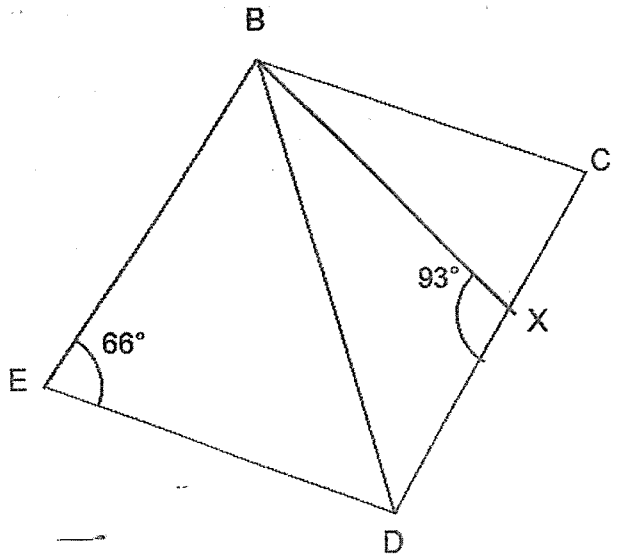
4

24 The ratio of the number of sweets Julie had to the number of sweets Irene had was 2 : 3. Julie ate $\frac{2}{3}$ of her sweets and now has 42 fewer sweets than Irene. How many sweets did Julie have at first?

Ans: _____.

---

25 BCDE is a rhombus. Find ∠DBX.



Ans: _____.

4

26 Arif had $2.20 more than Lucy at first. After Arif gave some of his money to Lucy, he had $20 less than Lucy. How much money did Arif give to Lucy?

Ans: $ _____

---

27 The table shows the bicycle rental charges at a park.

Bicycle Rental Charges	
First 2 hours	$20
Every additional 30 minutes or part thereof	$4.50

Jonathan rented a bicycle from 10:00 am to 1:45 pm. How much did he pay for the rental?

Ans: $ _____

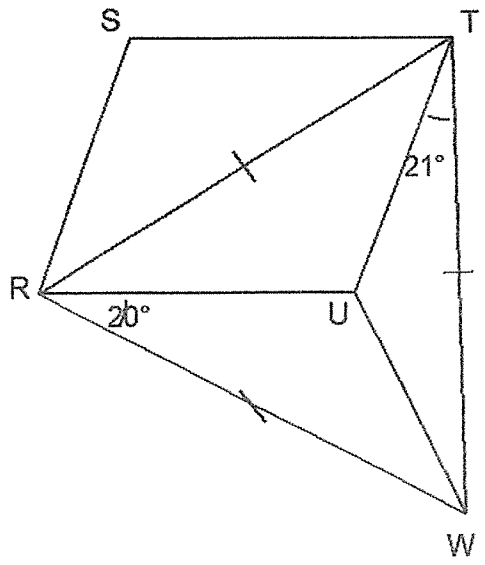
---

28 A theme park is offering a promotion where all tickets are sold at a 20% discount. Members will receive a further discount of $4 for every ticket they buy. Ashton is a member who bought 5 tickets and paid $60 altogether. What is the original price of each ticket before any discount?

Ans: $ _____ 4

---

29 RSTU is a parallelogram. WRT is an equilateral triangle. Find ∠RST.



Ans: ∠RST = _____° 2

4

30 Four classes A, B, C and D donated bottle caps for charity organization. Classes A and B donated a total of 84. Together, classes B, C and D donated a total of 120. The total number of bottle caps donated by all 4 classes is twice the number that class B donated. How many bottle caps did class B donate?

Ans: _____

END OF PAPER

2

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2026 PRELIMINARY EXAMINATION

MATHEMATICS
PAPER 2

Name : _____

Class : Primary 6 / _____ (Teacher: _____)

Date : 24 August 2026

15 Questions
50 Marks
Duration of Paper 2: 1 hour 20 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 14
   (b) Questions 1 to 15
6. You are allowed to use a calculator.

MARKS

	OBTAINED	POSSIBLE
PAPER 1		50
PAPER 2		50
TOTAL		100

Parent's Signature : _____

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 Write down

(a) the first common multiple of 6 and 8.

Ans: (a) _____

(b) all the common factors of 12 and 21.

Ans: (b) _____

---

2 2 cups and a plate cost \$6*m* in a shop. Each plate costs \$2 more than each cup. Find the cost of a cup. Give your answer in terms of *m*.

Ans: \$_____

4

3 The average of 6 numbers is 35. The sum of the first 4 numbers is 188. Find the average of the remaining 2 numbers.

Ans: _____

---

4 At 08 00, a flask of hot water was left to cool on a table. By 08 10, the temperature of the water decreased by 25% to 72°C.

(a) What was the original temperature of the water in the flask at 08 00?

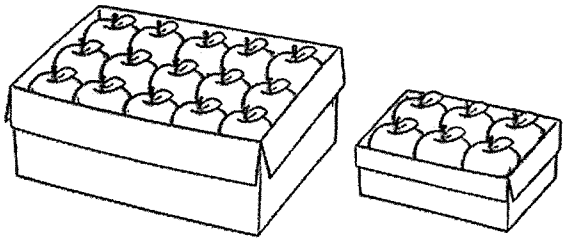
Ans: (a) _____°C

(b) By 08 15, the temperature of the water decreased to 60°C. What was the percentage decrease in the temperature from 08 00 to 08 15?

Ans: (b) _____%

4

5 Mrs Devi packed 219 apples into large and small boxes to sell. She filled each large box with 15 apples and each small box with 6 apples. All the boxes were full and there were no apples left.



Large box **Small box**

What was the **greatest** number of large boxes used by Mrs Devi?

Ans: _____

2

For questions **6** to **15**, show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. The number of marks available is shown in brackets [ ] at the end of each question or part-question. (40 marks)

---

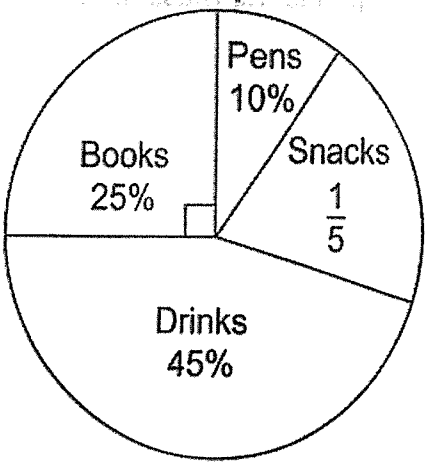
6 A box with 6 identical files weighs 5.2 kg. After Ken removed 4 files, the box with the remaining files weighs 3.06 kg. Find the mass of the empty box in grams.

Ans: _____ g [3]

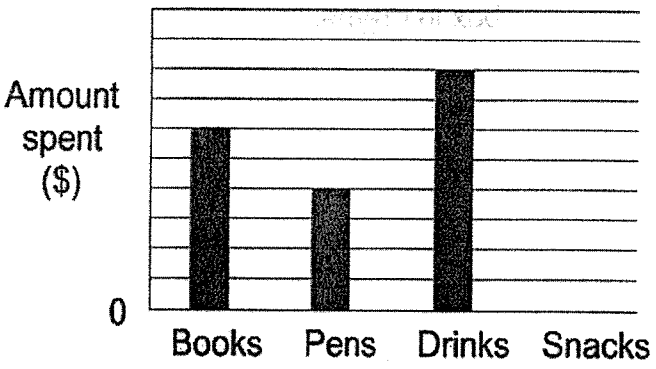
3

7 The pie chart shows how Jason spent his money while the bar graph shows how Kim spent her money. The bar to represent the amount Kim spent on snacks has not been drawn. Kim spent $9 more on books than pens. Jason spent half as much on drinks as Kim.

Jason's pie chart



Kim's bar graph



(a) How much did Jason spend on drinks?

Ans: (a) $_____ [2]

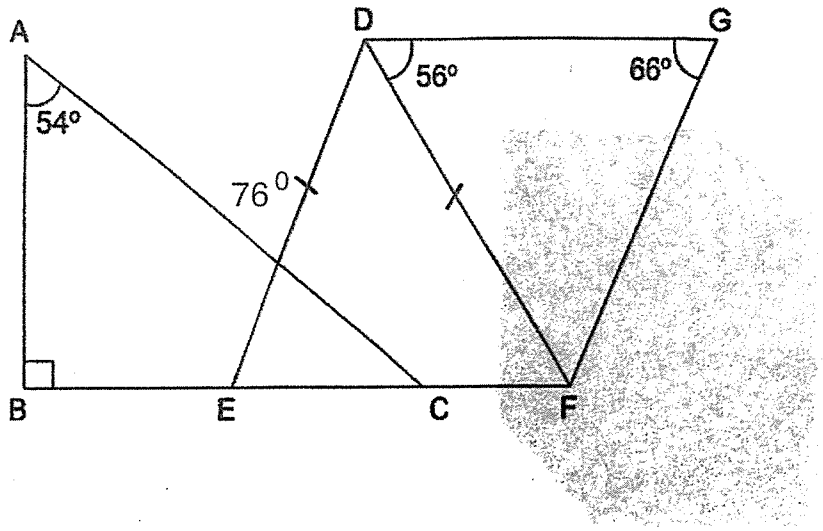
(b) How much did Jason spend on snacks?

Ans: (b) $_____ [1]

(c) Kim spent $\frac{1}{4}$ of her money on snacks. Find the amount Kim spent on snacks.

Ans: (c) $_____ [2]

8 The figure below is made up of 3 triangles, ABC, DEF and DFG. ABC is a right-angled triangle and ED = EF. BCF and EHD are straight lines.



(a) Find ∠HCF.

Ans: **(a)**_____ ° [1]

(b) Find ∠DEB.

Ans: **(b)**_____ ° [1]

(c) Circle the words that describe DEFG correctly in the following statement:

As DG (**is** / **is not**) parallel to EF and DE (**is** / **is not**) parallel to GF, DEFG (**is** / **is not**) a parallelogram.

[1]

3

9 Ahmad had a rectangular block of wood as shown in Figure 1. The length of the rectangular block is 4 cm and the breadth is 5 cm. He cut out a cube from the block and painted all the faces of the remaining block white as shown in Figure 2. The volume of the cube removed is 27 cm^3.

Figure 1

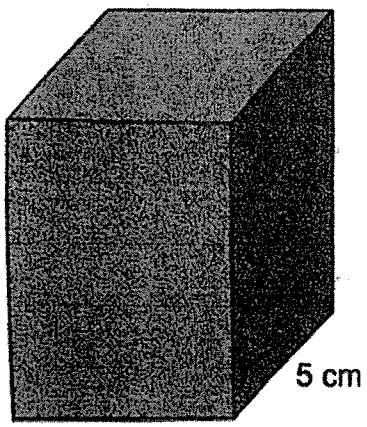
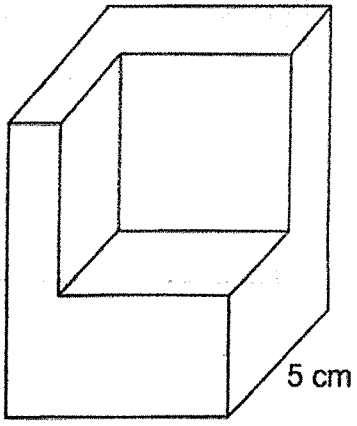


Figure 2



(a) Find the length of the cube removed.

Ans: (a)_____ cm [1]

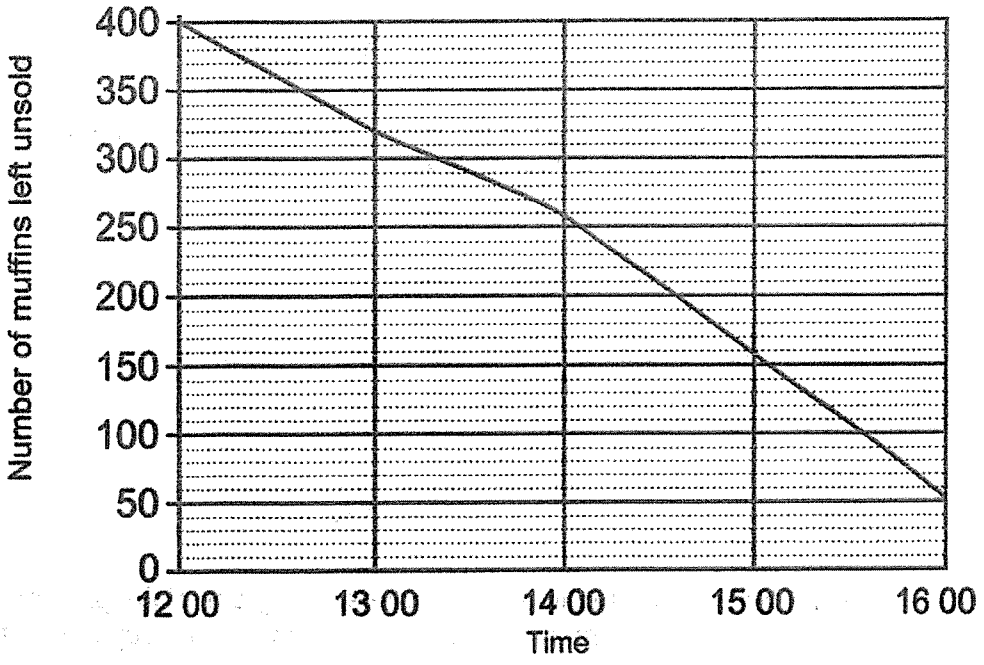
(b) The volume of the remaining block in Figure 2 is 73 cm^3. Find the height of the rectangular block in Figure 1.

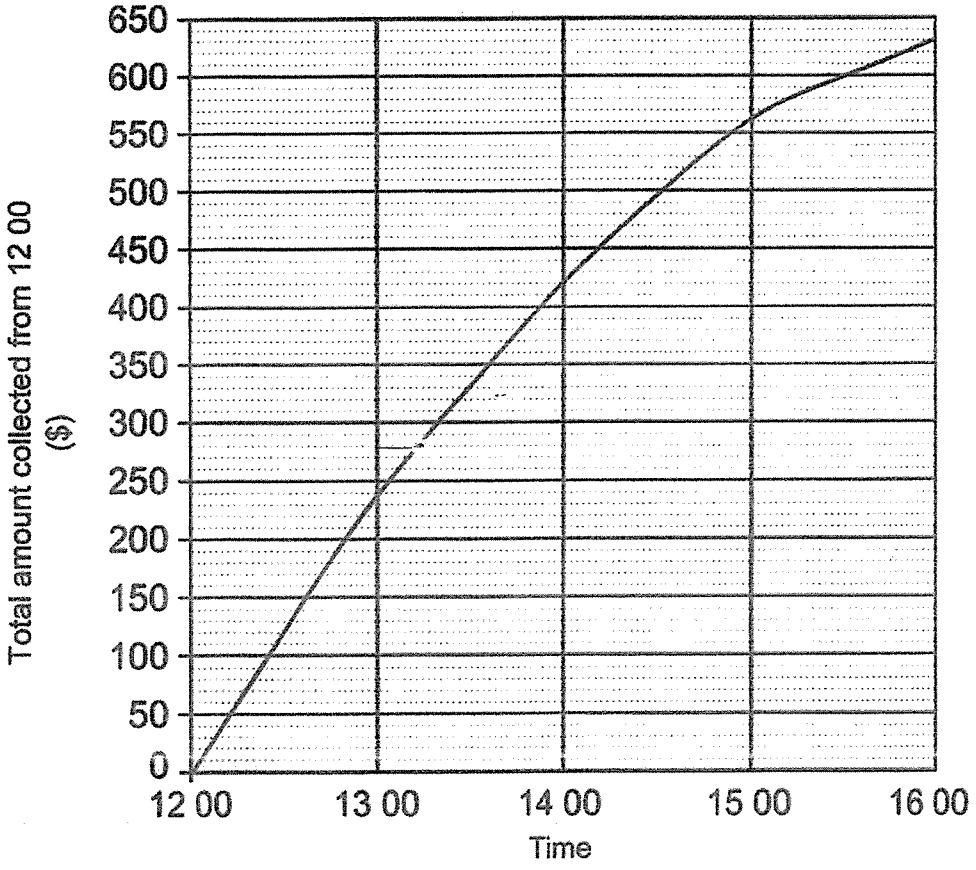
Ans: (b)_____ cm [2]

(c) Ahmad cut the remaining block in Figure 2 into 1-cm cubes. How many of these cubes have 3 of the faces painted white?

Ans: (c)_____ [1]

10 The line graphs below show the number of muffins left unsold in a bakery and the total amount collected from the sales of the muffins from 12 00. The muffins were sold at usual price from 12 00 to 14 00. The bakery carried out two different promotions. Promotion A was carried out from 14 00 to 15 00 and Promotion B was carried out from 15 00 to 16 00.





10 (a) Find the usual price of one muffin.

Ans: (a) $_____ [1]

(b) Find the difference in the total amount collected from the muffins sold during the 2 promotions.

Ans: (b) $_____ [1]

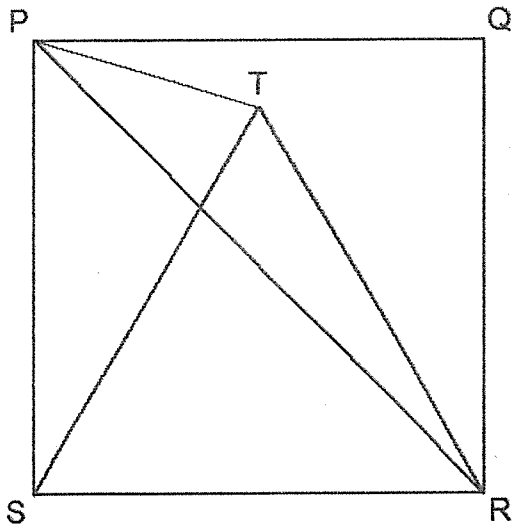
(c) Mr Gan wanted to buy 20 muffins during one of the promotions. During which promotion, A or B, should Mr Gan buy the muffins so that he would pay less? How much lesser would he be paying by choosing the cheaper promotion?

Ans: (c) Promotion:_____

Amount: $ _____ [2]

4

11 PQRS is a square and RST is an equilateral triangle.



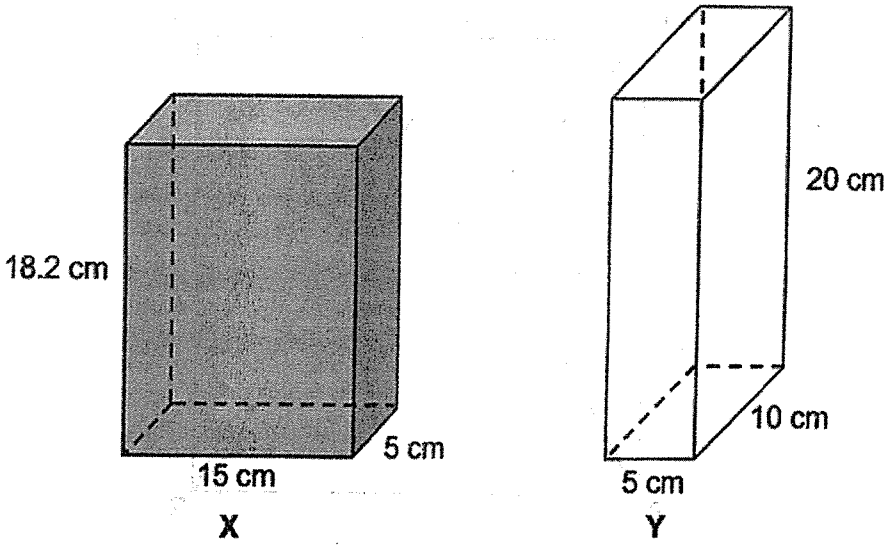
(a) Find ∠PRT.

Ans: (a)_____ ° [1]

(b) Find ∠QPT.

Ans: (b)_____ ° [2]

12 At first, tank X was filled to the brim with water and tank Y was empty.



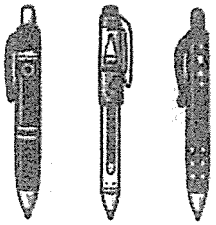
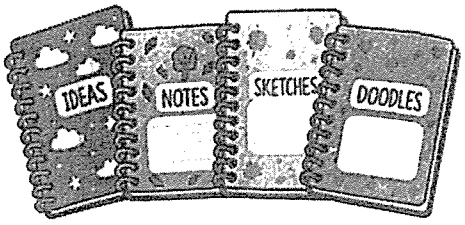
(a) Find the volume of water in tank X at first.
Express your answer in litres.

Ans: (a)_____ ℓ [1]

(b) Water is poured from tank X into tank Y until the height of the water level in tank Y is twice the height of the water level in tank X. Find the height of the water level in tank Y.

Ans: (b)_____ cm [3]

13 Pens and notebooks were sold in bundles in a bookshop. Daniel and Eunice bought some pens and notebooks at the prices shown below.

Pens	Notebooks
	
3 for $4.90	**4 for $5.90**

(a) Daniel bought an equal number of pens and notebooks. He spent $9.50 more on the pens. How many pens did he buy in all?

Ans: (a)_____ [3]

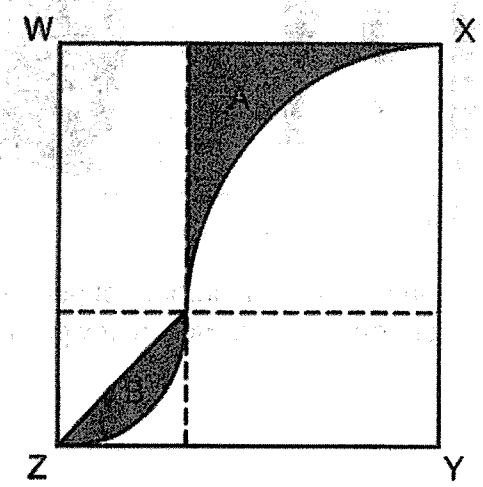
(b) Eunice bought some pens and notebooks. The ratio of the total number of pens she bought to the total number of notebooks she bought was 1 : 2. Write down one possible set of the number of bundles of pens and notebooks she bought.

Ans: (b) Number of bundles of pens: _____

Number of bundles of notebooks: _____ [2]

5

14 In the square WXYZ below, there is a big quadrant and a small quadrant. The radius of the big quadrant is twice the radius of the small quadrant. Claire shaded part A and B in the square below. The total perimeter of the unshaded parts is 32 cm longer than the perimeter of the shaded parts.



(Take π = 3.14)

(a) Find the perimeter of the shaded part A.

Ans: (a) _____ cm [2]

(b) Find the total area of the shaded parts.

Ans: (b) _____ cm^2 [3]

5

15 Mrs Lee baked some tarts. She kept 55 of them for her family and gave $\frac{2}{5}$ of the remaining tarts to her neighbours. She was left with $\frac{2}{7}$ of the tarts she baked and she packed all of them into 12 boxes. Some boxes contained 2 tarts each while the rest contained 4 tarts each.

(a) What fraction of the tarts she baked was kept for her family?

Ans: (a)_____ [1]

(b) How many boxes contained 2 tarts?

Ans: (b)_____ [3]

End of Paper

YEAR : 2026
LEVEL : PRIMARY 6
SCHOOL : RED SWASTIKA SCHOOL
SUBJECT : MATHEMATICS
TERM : PRELIMINARY EXAMINATION

(BOOKLET A)

Q1	4	Q2	4	Q3	1	Q4	2	Q5	2	Q6	2
Q7	4	Q8	1	Q9	3	Q10	3	Q11	2	Q12	2
Q13	4	Q14	4	Q15	2	Q16	1	Q17	3	Q18	2

(BOOKLET B)

Q19	(a) 15,745 ≈ 15,700 (b) 64 – (9 + 7) ÷ 4 × 2 = 64 – 16 ÷ 4 × 2 = 56	Q20	$4 \times \frac{3}{7} = \frac{12}{7}$ $= 1\frac{5}{7}$ km
Q21	(a) 15,900 ÷ 60 = 265 (b) 0.35 × 90 = 31.5	Q22	(a) 17 + 2(3) = 23 (b) $3 - \frac{4}{9} = \frac{27}{9} - \frac{4}{9}$ $= \frac{23}{9}$
Q23	(a) $\frac{4}{9} \div 12 = \frac{4}{9} \times \frac{1}{12}$ $= \frac{1}{27}$ (b) $\frac{1}{2}$	Q24	2 : 3 = 6 : 9 After Julie ate $\frac{2}{3}$, 2 : 9 remained. 9 – 2 = 7 units 42 ÷ 7 = 6 6 × 6 = 36 sweets
Q25	∠EBD = (180° – 66°) ÷ 2 = 57° ∠DBX = 180° – 93° – 57° = 30°	Q26	2x – 2.20 = 20 2x = 22.20 x = $11.10
Q27	10.00 a.m. to 1.45 p.m. = 3 h 45 min 1 h 45 min = 4 chargeable 30-min blocks $20 + 4 × $4.50 = $38	Q28	$60 ÷ 5 = $12 80% of usual price = $12 + $4 = $16 $16 ÷ 80% = $20
Q29	∠TRU = 60° – 20° = 40° ∠RTU = 60° – 21° = 39° ∠RUT = 180° – 40° – 39° = 101° ∠RST = 101°	Q30	A + B = 84 B + C + D = 120 A + B + C + D = 2B A + 120 = 2B, A = 84 – B 84 – B + 120 = 2B 204 = 3B B = 68 bottle caps

PAPER 2

Q1	(a) 24 (b) 1, 3	Q2	Let the cost of a cup be c dollars. $2c + (c + 2) = 6m$ $3c = 6m - 2$ $c = \frac{6m - 2}{3}$ $= 2m - \frac{2}{3}$ dollars
Q3	$35 \times 6 = 210$ $210 - 188 = 22$ $22 \div 2 = 11$	Q4	(a) $72 \div 75\% = 96°C$ (b) $\frac{96 - 60}{96} \times 100\%$ $= 37.5\%$
Q5	$14 \times 15 = 210$ $219 - 210 = 9$ (not divisible by 6) $13 \times 15 = 195$ $219 - 195 = 24$ $24 \div 6 = 4$ 13 large boxes	Q6	4 files = 5.20 – 3.06 = 2.14 kg 1 file = 2.14 ÷ 4 = 0.535 kg 6 files = 0.535 × 6 = 3.21 kg 5.20 – 3.21 = 1.99 kg = 1990 g
Q7	2 units = \$9; 1 unit = \$4.50 Kim's drinks = 8 × \$4.50 = \$36 (a) \$36 ÷ 2 = \$18 (b) \$18 ÷ 45% = \$40 20% × \$40 = \$8 (c) (6 + 4 + 8) × \$4.50 = \$81 \$81 ÷ 3 = \$27	Q8	(a) 180° – (90° + 54°) = 36° 180° – 36° = 144° (b) 360° – 54° – 104° – 90° = 112° (c) DG is parallel to EF. DE is not parallel to GF. DEFG is not a parallelogram.
Q9	(a) $\sqrt[3]{27} = 3$ cm (b) (73 + 27) ÷ (4 × 5) = 5 cm (c) 12 cubes	Q10	(a) 400 – 320 = 80 muffins \$240 ÷ 80 = \$3 (b) Promotion A: \$570 – \$420 = \$150 Promotion B: \$630 – \$570 = \$60 \$150 – \$60 = \$90 (c) Promotion A: \$150 ÷ 100 = \$1.50 each Promotion B: \$60 ÷ 100 = \$0.60 each 20 × (\$1.50 – \$0.60) = \$18 Promotion B; \$18 less

Q11

(a) $60° - 45° = 15°$

(b) $\angle PST = 90° - 60° = 30°$
$\angle SPT = (180° - 30°) \div 2 = 75°$
$\angle QPT = 90° - 75° = 15°$

Q12

(a) $15 \times 5 \times 18.2 = 1365\ cm^3$
$= 1.365\ \ell$

(b) Let the height in Tank X be h cm.
$75h + 50(2h) = 1365$
$175h = 1365$
$h = 7.8$
Height in Tank Y $= 2 \times 7.8 = 15.6$ cm

Q13

(a) For every 12 items:
Pens: $4 \times \$4.90 = \$19.60$
Notebooks: $3 \times \$5.90 = \$17.70$
$\$19.60 - \$17.70 = \$1.90$
$\$9.50 \div \$1.90 = 5$
$5 \times 12 = 60$ pens

(b) $3p : 4n = 1 : 2$
$p : n = 2 : 3$
2 bundles of pens; 3 bundles of notebooks

Q14

Let the small radius be r cm.
Square side = 3r; large radius = 2r
$10r - 2r = 32$
$8r = 32;\ r = 4$ cm

(a) $2(2r) + \frac{1}{4} \times 2\pi(2r)$
$= 4r + \pi r$
$= 4(4) + 3.14(4)$
$= 28.56$ cm

(b) Area of A $= \frac{1}{4} \times \pi \times (2r)^2$
$= 50.24\ cm^2$
Area of B $= \frac{1}{4}\pi r^2 - \frac{1}{2}r^2$
$= 4.56\ cm^2$
$50.24 + 4.56 = 54.8\ cm^2$

Q15

Let the number of tarts baked be T.
$\frac{3}{5}(T - 55) = \frac{2}{7}T$
$21(T - 55) = 10T$
$11T = 1155;\ T = 105$
(a) $\frac{55}{105} = \frac{11}{21}$

(b) $\frac{2}{7} \times 105 = 30$ tarts
$2x + 4(12 - x) = 30$
$2x + 48 - 4x = 30$
$x = 9$ boxes

4

END