METHODIST GIRLS' SCHOOL (PRIMARY)

Founded in 1887

TIMED PRACTICE 2023
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: 30 May 2023

This booklet consists of **6** 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 Which digit in 78.95 is in the tenths place?

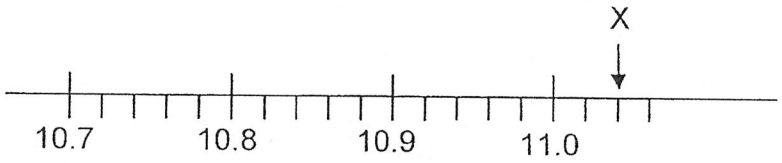
(1) 5

(2) 7

(3) 8

(4) 9

2 Part of a scale is shown below.
What is the value of the reading at X?



(1) 11.02

(2) 11.04

(3) 11.20

(4) 11.40

3 Which of the following is likely to be the total mass of 6 empty 300-ml cans?

(1) 14 g

(2) 114 g

(3) 414 g

(4) 1140 g

4 Find the value of $\frac{4}{5} \div 12$.

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

(2) $\frac{5}{17}$

(3) $9\frac{3}{5}$

(4) 15

5 Which of the following fractions has the smallest value?

(1) $\frac{3}{7}$

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

(3) $\frac{3}{8}$

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

6 The ratio of Jasmine's age to her brother's age is 2 : 3. Jasmine is 12 years old. What is her brother's age?

(1) 6 years old

(2) 8 years old

(3) 18 years old

(4) 30 years old

7 Express 2 m as a percentage of 50 cm.

(1) 4000%

(2) 400%

(3) 25%

(4) 4%

8 Find the circumference of a circle of diameter 50 m.
(Take $\pi = 3.14$)

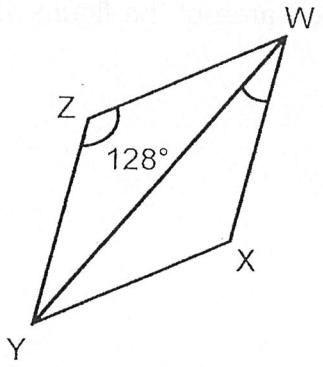
(1) 78.5 m

(2) 157 m

(3) 314 m

(4) 1962.5 m

9 In the figure below, not drawn to scale, WXYZ is a rhombus. $\angle WZY = 128°$. Find $\angle YWX$.



(1) 26°

(2) 31°

(3) 52°

(4) 64°

10 A photocopy machine can print 20 pages every 60 seconds. How long will the machine take to print 50 pages?

(1) 150 s

(2) 70 s

(3) 3 s

(4) 30 s

11 Henry is $\frac{3}{7}$ as heavy as Emma and $\frac{1}{4}$ as heavy as Jimmy. What is the ratio of Henry's mass to the total mass of Emma and Jimmy?

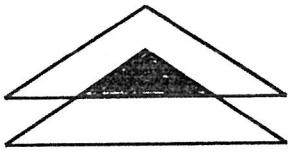
(1) 3 : 11

(2) 3 : 14

(3) 3 : 19

(4) 3 : 22

12 The figure below shows 2 identical triangles overlapping each other. $\frac{3}{8}$ of each triangle is shaded. Express the unshaded area of the figure as a fraction of the total area of the figure.



(1) $\frac{3}{13}$

(2) $\frac{10}{13}$

(3) $\frac{3}{16}$

(4) $\frac{10}{16}$

13 Jamie received a salary of $4200 in May. This was a decrease of 40% in salary compared to April. How much salary did she receive in April?

(1) $2520

(2) $3000

(3) $5880

(4) $7000

14 A rectangular piece of paper, as shown in Figure 1, was bent to become a hollow cylindrical tube of radius 7 cm as shown in Figure 2 below. Find the area of the rectangular piece of paper.

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

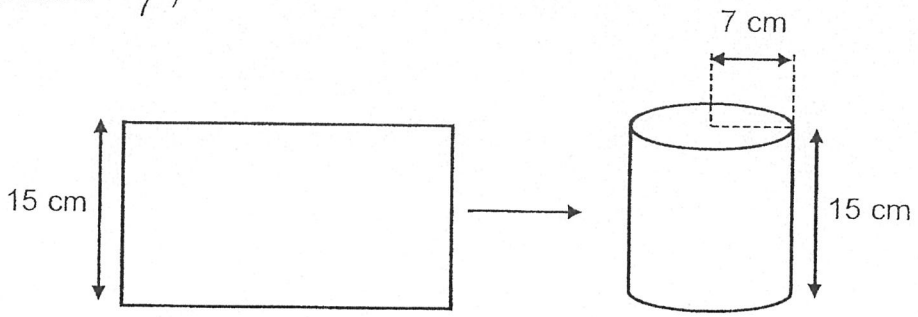


Figure 1 Figure 2

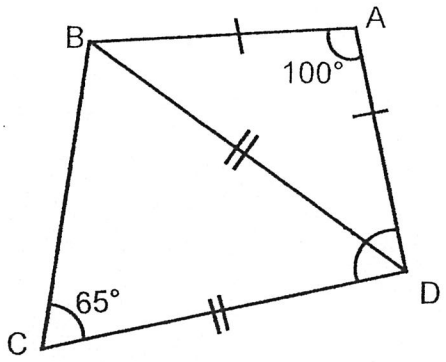
(1) 210 cm^2

(2) 330 cm^2

(3) 660 cm^2

(4) 2310 cm^2

15 In the figure below, not drawn to scale, AB = AD and BD = DC. $\angle BAD = 100°$ and $\angle BCD = 65°$. Find $\angle ADC$.



(1) 65°

(2) 80°

(3) 90°

(4) 105°

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: 30 May 2023

45

Parent's Signature: _____

This booklet consists of **8** 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 Find the value of 9020 ÷ 5

Ans: _____

17 Round 24.005 to the **nearest tenth**.

Ans: _____

18 Find the value of 0.38 x 50

Ans: _____

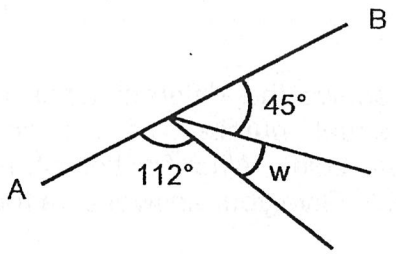
(Go on to the next page)

19 Kenny had 2.06 kg of sand at first. He used 730 g of it. How many kilograms of sand did he have left?

Do not write in this space

Ans: _____ kg

20 In the figure below, not drawn to scale, AB is a straight line.
Find ∠w.



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

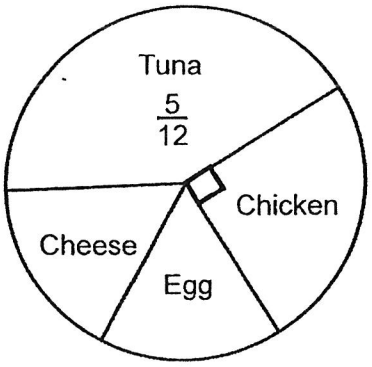
21 (a) Find the value of $\frac{1}{4} + \frac{3}{5}$

Ans: (a) _____

(b) Write down one fraction between $\frac{1}{3}$ and $\frac{2}{3}$

Ans: (b) _____

22 The pie chart shows the different types of sandwiches sold at a canteen. An equal number of cheese sandwiches and egg sandwiches were sold. What fraction of the sandwiches sold were egg sandwiches? Give your answer as a fraction in its simplest form.



Ans: _____

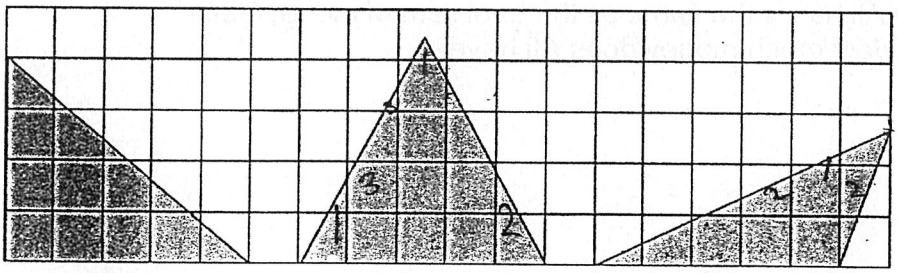
(Go on to the next page)

23 The total mass of 3 similar projectors and 3 similar cameras is 15 kg. Each projector weighs three times as much as a camera. Find the mass of a camera.

Do not write in this space

Ans: _____ kg

24 In the square grid below, E, F and G are triangles.
Arrange E, F and G from the smallest area to the largest.



Ans: _____ , _____ , _____

(Go on to the next page)

Do not write in this space

25 Gary had some yellow, orange and blue pens. $\frac{3}{10}$ of the pens were yellow. The number of yellow pens was twice the number of orange pens. Find the ratio of the number of blue pens to the total number of pens Gary had.

Give your answer in its simplest form.

Ans: _____

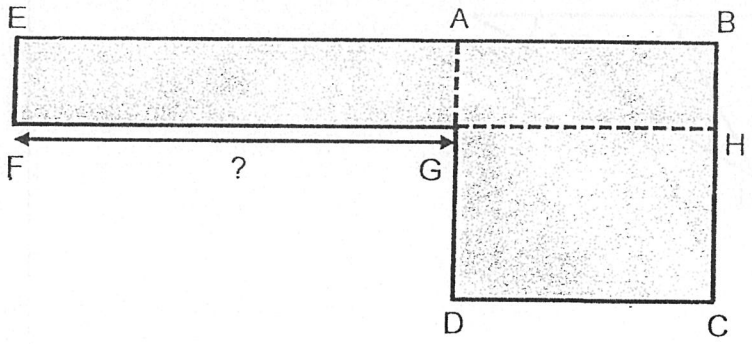
26 Ali has $27 more than Belle. Carol has $15 more than Belle. The amount of money Ali has is the same as the total sum of money Belle and Carol have. How much money does Ali have?

Ans: $ _____

(Go on to the next page)

27 In the figure below, Square ABCD and Rectangle EBHF have the same area. Rectangle EBHF has an area of 81 cm^2. The length of BC is three times the length of BH. Find the length of FG.

Do not write in this space



Ans: _____ cm

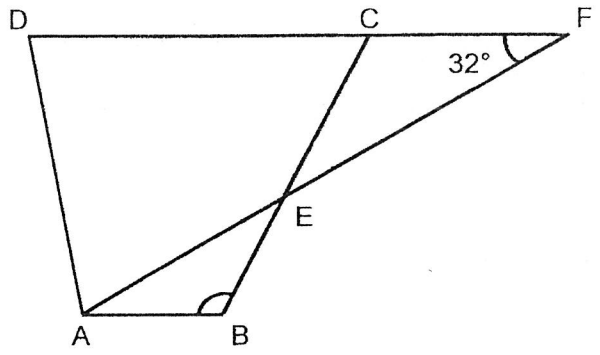
28 The radius of a toy wheel is 7 cm. The wheel makes 10 revolutions in 30 seconds. What is the distance travelled by the toy wheel after 3 minutes? (Take $\pi = \frac{22}{7}$)

Ans: _____ cm

(Go on to the next page)

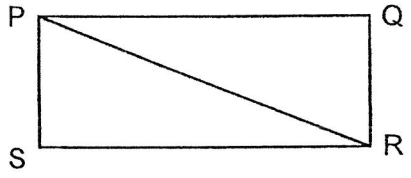
29 In the figure below, not drawn to scale, ABCD is a trapezium. AEF and BEC are straight lines. $\angle CFA = 32°$. DF // AB and CE = CF. Find $\angle ABC$.

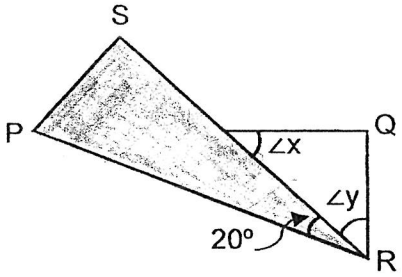
Do not write in this space



Ans: _____ °

30 Indra has a rectangular piece of paper.
She folds it diagonally along the line PR as shown below.





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

Statement	True	False	Not possible to tell
(a) $\angle x$ is equal to $\angle y$.			
(b) The length of SR is the same as PR.			
(c) $\angle x$ is 40°.			

End of Paper

METHODIST GIRLS' SCHOOL (PRIMARY)

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TIMED PRACTICE 2023
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 : 30 May 2023

Parent's Signature: _____

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

This booklet consists of **17** 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 Arif had 16 kg of flour. He used $\frac{3}{4}$ of it at his food stall and gave $\frac{2}{5}$ kg to his neighbour. How much flour had Arif left?

Ans: _____ kg

2 Today is Tuesday.
Which day of the week will it be

May 2023

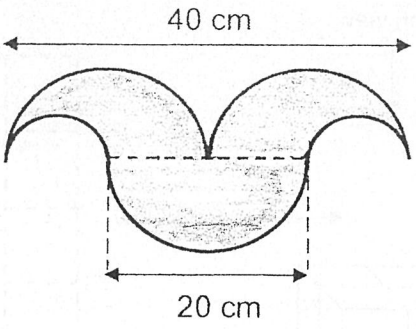
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

Ans: _____

(Go on to the next page)

3 The figure below shows 3 identical semicircles with diameter 20 cm and another 2 smaller identical semicircles. Find the area of the figure. (Take $\pi = 3.14$)

Do not write in this space



Ans: _____ cm^2

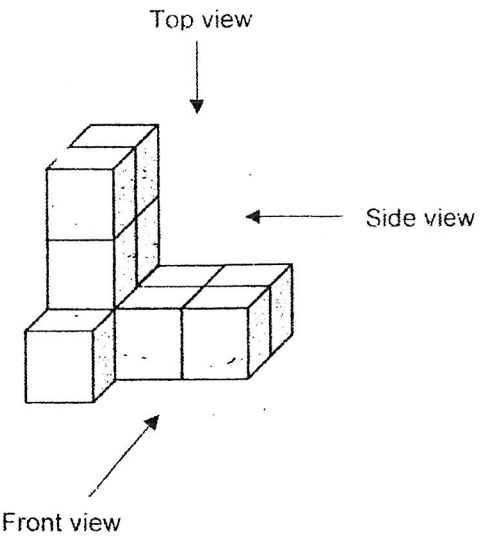
4 Haiyun wrote a number down on her whiteboard. She wanted to divide that number by 10 but had mistakenly multiplied the number by 10. The answer she obtained was 8613 more than the answer she should have had. What number did Haiyun write on her whiteboard?

Ans: _____

(Go on to the next page)

5 (a) The solid below is made up of 1-cm cubes glued together.
Draw the top view of the solid (as seen from the front) in the grid.

Do not write in this space



(b) What is the least number of cubes that need to be added to the solid above to form a cube?

Ans: (b) _____

(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, The table below shows the fare rate of a taxi company. Nayla flagged down a taxi at 6.50 a.m. and travelled 6 km 420 m. How much did she have to pay?

Basic Fare	**Amount**
Flag down (inclusive of 1st km or less)	$3.90
Every 400 m or part thereof	$0.95

Peak Hour surcharge (at time of boarding)	
6 a.m. to 9.30 a.m.	25% of the total fare

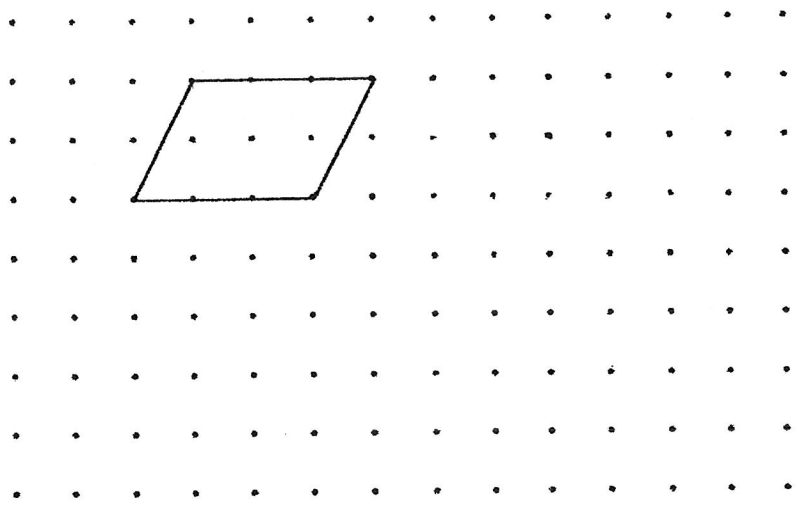
Ans: _____ [3]

(Go on to the next page)

7 In the diagram below, a parallelogram is drawn by joining dots to form 4 lines on the square grid below. In the same manner,

Do not write in this space

(a) draw a right-angled triangle with the same perimeter as the parallelogram. This right-angled triangle should not overlap with the parallelogram.



[1]

(b) Find the ratio of the area of the triangle to the area of the parallelogram. Give your answer in its simplest form.

Ans: (b) _____ [2]

8 Dennis and Eric shared the total cost of a drum set. Dennis paid \$85 less than $\frac{4}{9}$ of the cost of the drum set. Eric paid \$445. How much did Dennis pay for the drum set?

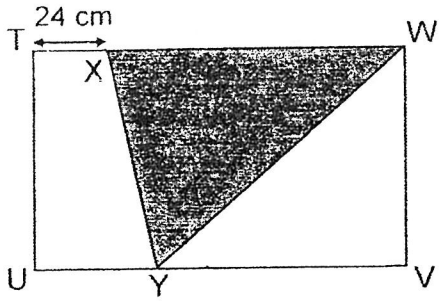
Do not write in this space

Ans: _____ [3]

(Go on to the next page)

9. The figure below is made up of Rectangle TUVW and Triangle WXY. The area of Rectangle TUVW is 9360 cm^2 and the area of Triangle WXY is 3744 cm^2. TX = 24 cm. What is the length of TU?

Do not write in this space



Ans: _____ [3]

(Go on to the next page)

10 The bar graph shows the number of visitors to a museum from January to March. The number of visitors is not shown on the scale.

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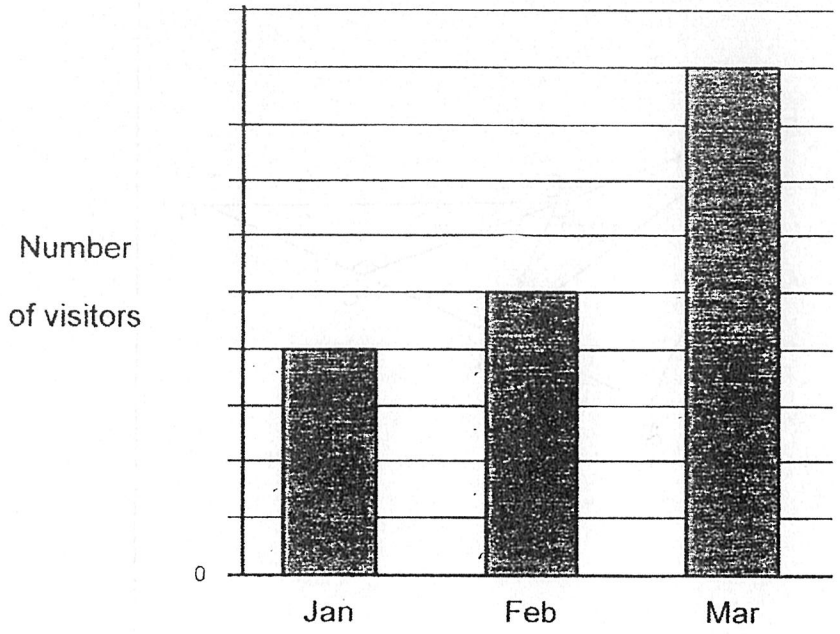


(a) What was the percentage increase in the number of visitors from January to February?

Ans: (a) _____ [1]

(b) The average number of visitors from January to March was 300. How many visitors were there in March?

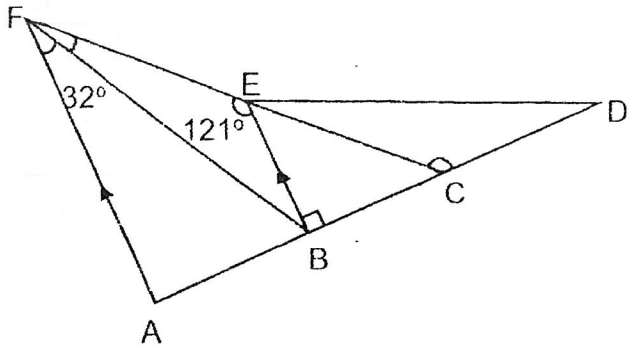
Ans: (b) _____ [2]

(Go on to the next page)

11 In the figure, ABCD and FEC are straight lines. AF is parallel to BE. ∠BEF is 121°. ∠AFB is 32°. ∠CBE is a right angle.

Do not write in this space

(a) Find ∠BFE.



Ans: (a) _____ [2]

(b) Find ∠DCE.

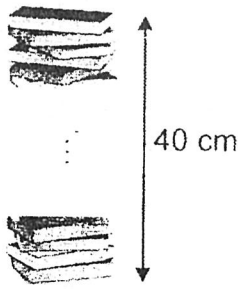
Ans: (b) _____ [2]

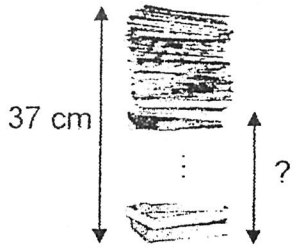
(Go on to the next page)

12 The height of a stack of 20 similar fiction books was 40 cm. Jia Hao took away some of these books from the stack. He placed 26 similar newspapers on top of the remaining fiction books. The height of the stack of fiction books and newspapers was 37 cm. The height of each fiction book was 1.5 cm thicker than each newspaper

Do not write in this space

(a) Find the height of the fiction books left.





Ans: (a) _____ [2]

(b) Find the number of fiction books that Jia Hao took away from the stack.

Ans: (b) _____ [2]

(Go on to the next page)

13 At a sale, Amita paid a total of $800 for a rice cooker and an oven. The total discount for both items was $300. A 40% discount was given to the rice cooker. She and paid $140 more for the oven than the rice cooker.

Do not write in this space

(a) What was the discount given to the rice cooker?

Ans: (a) _____ [2]

(b) What was the percentage discount given for the oven? Round your answer to 1 decimal place.

Ans: (b) _____ [2]

(Go on to the next page)

14 Jasmine, Kailing and Lisa made identical large and small stars using wire.

Jasmine made $\frac{2}{7}$ of the total number of stars. Kailing made $\frac{1}{3}$ of the remaining stars and Lisa made the rest.

Length of wire used for each star	
large star	50 cm
small star	30 cm

Jasmine made all the large stars,while Kailing and Lisa made all the small stars. Lisa used 4.5 m of wire more than Kailing. .

(a) How many small stars did Kailing and Lisa make?

Ans: (a) _____ [2]

(b) Find the total length of wire the girls used to make all the large and small stars.

Ans: (b) _____ [2]

Do not write in this space

(Go on to the next page)

15 Bala used shaded and unshaded squares to form figures that follow a pattern. The first four figures are shown below.

Do not write in this space

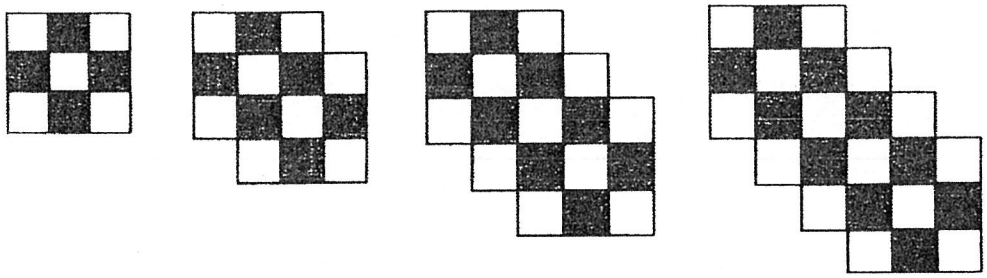


Figure 1 Figure 2 Figure 3 Figure 4

(a) The table below shows the number of shaded and unshaded squares for each figure. Complete the table for Figure 5 and Figure 6.

Figure Number	Number of shaded squares	Number of unshaded squares
1	4	5
2	6	8
3	8	11
4	10	14
5	12	(i) _____
6	14	(ii) _____

[1]

(b) What is the difference in the number of unshaded squares Bala used for Figure 11 and Figure 14?

Ans: (b) _____ [2]

(Go on to the next page)

(c) A figure in the pattern has 20 more unshaded than shaded squares. What is the total number of shaded and unshaded squares in that figure?

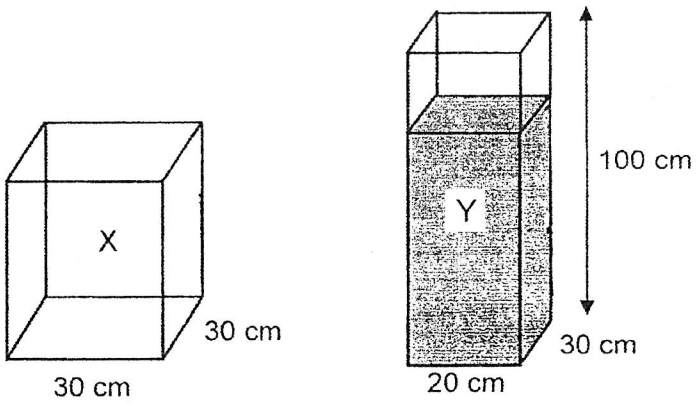
Do not write in this space

Ans: (c) _____ [2]

(Go on to the next page)

16 Grandma has 2 rectangular tanks, Tank X and Tank Y. Tank X is an empty container with a square base of sides 30 cm. Tank Y measures 20 cm by 30 cm by 100 cm. Tank Y was $\frac{4}{5}$ filled with water at first.

Do not write in this space



Grandma then poured some water from Tank Y into Tank X until the height of the water in Tank X became 2 times the height of the water in Tank Y.

(a) How much water was in Tank Y at first?

Ans: _____ [1]

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

Ans: _____ [3]

(Go on to the next page)

17 Mrs Ong is preparing chicken wings for a big party. The ratio of the number of adults to the number of children attending is 3 : 4. Among the children, the ratio of the number of girls to the number of boys is 2 : 3. A total of 270 chicken wings are prepared so that each adult will get 5 chicken wings and each child will get 3.

Do not write in this space

(a) What is the ratio of the number of adults to the number of girls to the number of boys at the party?
Give your answer in the simplest form.

Ans: (a) _____ [1]

(b) How many children are expected to attend the party?

Ans: (b) _____ [2]

(c) How many chicken wings will be distributed to the girls at the party?

Ans: (c) _____ [2]

END OF PAPER

YEAR : 2023
LEVEL : PRIMARY 6
SCHOOL : METHODIST GIRLS' SCHOOL (PRIMARY)
SUBJECT : MATHEMATICS
TERM : PAPER 1

BOOKLET A

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

BOOKLET B

Q16	9020 ÷ 5 = 1804	Q17	24.0
Q18	0.38 x 10 = 3.8 3.8 x 5 = 19	Q19	2.06kg = 2060g 2060 – 730 = 1330g = 1.33kg
Q20	180 – 45 – 112 = 23°	Q21	(a) $\frac{1}{4} + \frac{3}{5} = \frac{5}{20} + \frac{12}{20} = \frac{17}{20}$ (b) $\frac{1}{3}$ and $\frac{4}{6} = \frac{2}{6}$ and $\frac{4}{6}$ $= \frac{1}{2}$
Q22	$1 - \frac{8}{12} = \frac{4}{12}$ $\frac{4}{12} \div 2 = \frac{2}{12}$ $= \frac{1}{6}$	Q23	P : C 3 : 1 9 : 3 15 ÷ 12 = 1.25kg
Q24	G, E, F	Q25	$\frac{3}{10} = \frac{6}{20}$ $\frac{6}{20} \div 2 = \frac{3}{20}$ 6 + 3 = 9 20 – 9 = 11 B : T 11 : 20
Q26	1u : 27 – 15 = 12 Ali : 12 + 27 = $39	Q27	81 ÷ 3 = 27 27 – 9 = 18cm
Q28	7 x 2 x $\frac{22}{7}$ = 44cm 30sec = 44 x 10 = 440cm 3 min = 6 30sec = 440 x 6 = 2640cm	Q29	180 – 64 = 116°
Q30	(a) False (b) False (c) True		

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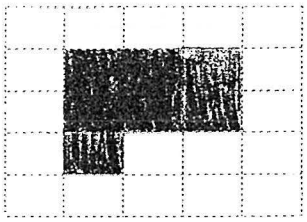
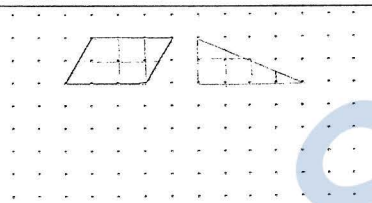
Q1	$16 \times \frac{1}{4} = 4kg$ $4kg - \frac{2}{5}kg = 3\frac{3}{5}kg$	Q2	$88 \div 7 = 12r4$ Tuesday → Saturday
Q3	Small circle : $\frac{5 \times 5 \times 3.14}{1} = 78.5$ 1 semi circle = $\frac{10 \times 10 \times 3.14}{2} = 157$ 3 semi circle = 157 x 3 = 471 Area of fig = 471 – 78.5 = 392.5cm^2	Q4	10 x 10 = 100 100 – 1 = 99 8613 ÷ 9 = 87 87 x 10 = 870
Q5	(a)  (b) 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 = 16	Q6	6km 420m – 1km = 5km 420m 5km 420m ÷ 400m = 13r220m (13 + 1) x 0.95 = 13.30 3.90 + 13.30 = 17.20 17.20 ÷ 4 = 4.30 Total fare = 4.30 + 17.20 = $21.50
Q7	 (a) $2 \times 4 \times \frac{1}{4} = 4$ T : PS 4 : 6 2 : 3 (b)	Q8	445 – 85 = 360 360 → $\frac{5}{9}$ $\frac{1}{9}$ → 360 ÷ 5 = 72 $\frac{4}{9}$ → 72 x 4 = 288 Dennis → 288 – 85 = $203
Q9	Unshaded area = 9360 – 3744 = 5616cm^2 5616 – 3744 = 1872cm^2 1872 ÷ 24 = 78cm	Q10	(a) 100 ÷ 4 = 25% (b) 300 x 3 = 900 900 ÷ 18 = 50 80 x 9 = 450 visitors
Q11	(a) 180 – 121 – 32 = 27 (b)180– 121 = 59 180 – 59 – 90 = 31 180 – 31 = 149°	Q12	(a) 1 fiction book → 40 ÷ 20 = 2cm 2 – 1.5 = 0.5cm 26 x 0.5 = 13 37 – 13 = 24cm (b) 24 ÷ 2 = 12 20 + 2 = 8 fiction books
Q13	(a) 800 – 140 = 660 660 ÷ 2 = 330 Original price of RC = 330 ÷ 6 x 4 = $220 (b) 330 + 140 = 470 300 – 220 = 80 80 – 470 = 550	Q14	(a) $\frac{1}{3}$R = 15 stars R = 15 x 3 = 45 ~~stairs~~ stars (b)45 = $\frac{5}{7}$ $\frac{1}{7}$ = 45 ÷ 5 = 9 $\frac{2}{7}$ = 9 x 2 = 18 45 x 30 = 1350 18 x 50 = 900 1350 + 900 = 2250cm

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Q15	(a) (i) 17 (ii) 20 (b) Figure unshaded squares = 20 + 5 x 3 = 35 Figure 14 unshaded squares = 35 + 3 x 3 = 44 44 – 35 = 9 (c) Shaded squares → 4 + 2 + 19 = 42 Unshaded → 5 + 3 x 19 = 62 42 + 62 = 104 squares	Q16	(a) 80 x 30 x 20 = 48 000cm^3 (b) 30 x 30 x 2h + 20 x 30 = 48000 $\frac{900\ x\ 2h}{1800h}$ + 600 x h = 48 000 1800H + 600H = 48 000 48 000 ÷ 2400 = 20 20 x 2 = 40
Q17	(a) A : G : B 15 : 8 : 12 (b) 15 x 5 = 75 20 x 3 = 60 15 x 10 = 150 20 x 6 = 120 1u = 2 people 20u : 2 x 20 = 40 children (c) 40 x 3 = 120 20u = 120 1u = 120 ÷ 20 = 6 Girls = 8u = 6 x 8 = 48 Chicken wings		

END

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