AI TONG SCHOOL

2025

PRELIMINARY EXAMINATION
PRIMARY 6

MATHEMATICS
PAPER 1
(Booklet A)

DURATION (Booklets A and B) : 1 h

DATE : 19 AUGUST 2025

INSTRUCTIONS

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 2B pencil to shade your answers in the Optical Answer Sheet (OAS).
5. The use of calculators is **NOT** allowed.

Name: _____ (10)

Class: Primary 6 _____

Marks:

Parent's Signature : _____ **Date** : _____	**Paper 1 (Booklet A)** / **20**

- BLANK PAGE -

Paper 1 Booklet A

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 of the following is forty-five thousand and thirty in numerals?

(1) 4530
(2) 45 030
(3) 45 300
(4) 450 030

2 Round 7549 to the nearest hundred.

(1) 7000
(2) 7500
(3) 7600
(4) 8000

3 Express 2.4 as a percentage.

(1) 0.024 %
(2) 0.24 %
(3) 24 %
(4) 240 %

4 What is the missing number in the box?

$$7.216 = 7 + 0.2 + \boxed{?}$$

(1) 0.016

(2) 0.16

(3) 1.6

(4) 16

5 Which fraction is smaller than $\frac{1}{2}$?

(1) $\frac{5}{7}$

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

(3) $\frac{3}{6}$

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

6 Which of the following could be the mass of a mobile phone?

(1) 0.05 kg

(2) 1.5 kg

(3) 15 g

(4) 150 g

7 Arrange the following fractions from the smallest to the greatest.

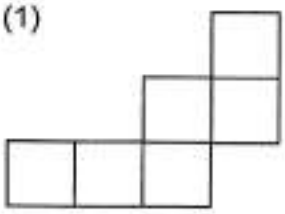
$$\frac{6}{11} \quad \frac{7}{10} \quad \frac{3}{5}$$

	Smallest		Greatest
(1)	$\frac{6}{11}$,	$\frac{3}{5}$,	$\frac{7}{10}$
(2)	$\frac{6}{11}$,	$\frac{7}{10}$,	$\frac{3}{5}$
(3)	$\frac{3}{5}$,	$\frac{6}{11}$,	$\frac{7}{10}$
(4)	$\frac{3}{5}$,	$\frac{7}{10}$,	$\frac{6}{11}$

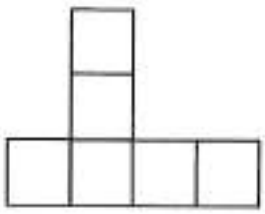
8 The figure shows a cube.

Which one of the following is a net of a cube?

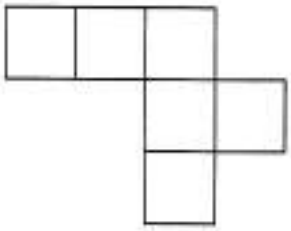
(1)



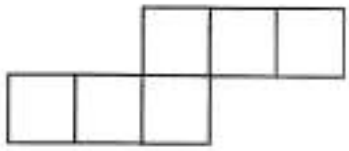
(2)



(3)



(4)



9 The table below shows the number of students in four groups A, B, C and D. Which of the following pie charts best represents the information?

Group	A	B	C	D
Number of students	15	30	25	30

(1)

(2)

(3)

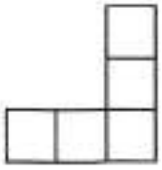
(4)

(3)

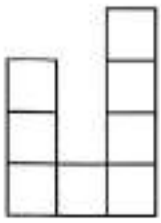
10 Find the value of $\frac{4y}{2} + 10 - 4$ when $y = 4$.

(1) 11
(2) 14
(3) 22
(4) 28

11 Amelia used identical unit cubes to build a solid. She drew the top and side views of the solid as shown below.



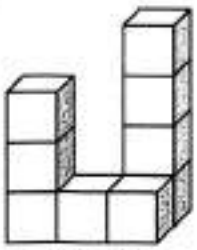
Top view



Side view

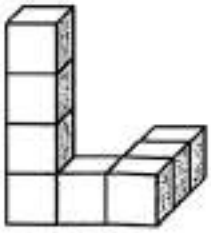
Which of the following could be the solid built by Amelia?

(1)



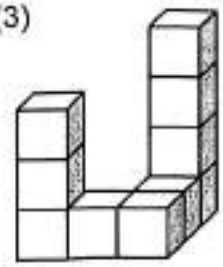
Front view

(2)



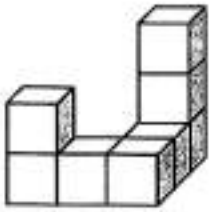
Front view

(3)



Front view

(4)

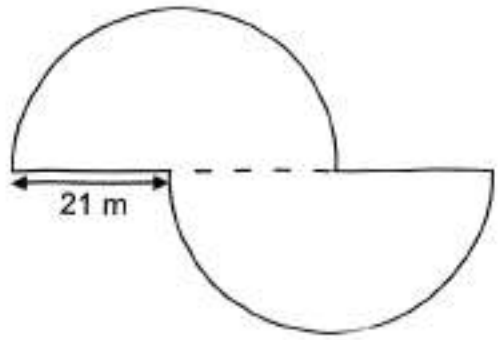


Front view

12 Hassan spent 35% of his monthly allowance on food and $\frac{2}{5}$ of the remaining allowance on transport. What percentage of his allowance was left?

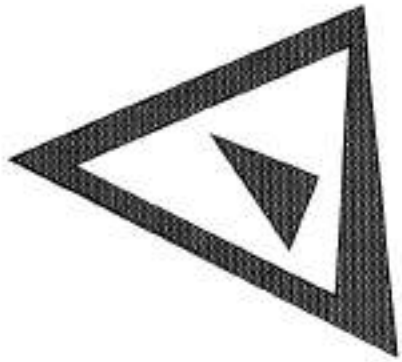
(1) 65%
(2) 61%
(3) 39%
(4) 25%

13 The figure is made up of two identical semicircles with radius of 21 m. Find the perimeter of the figure in terms of π.



(1) 21π m
(2) $(21\pi + 21)$ m
(3) 42π m
(4) $(42\pi + 42)$ m

14 Jack drew three triangles to form a figure. The areas of the triangles were in the ratio of 1 : 8 : 12. He then shaded some parts of the figure as shown. What is the ratio of the total area of the shaded parts to the area of the figure?



(1) 5 : 12

(2) 5 : 21

(3) 7 : 12

(4) 2 : 3

15 4 years ago, the ratio of Calvin's age to Lina's age is 2 : 7.

In 8 years' time, Calvin's age will be $\frac{2}{5}$ of Lina's age. How old is Calvin now?

(1) 10 years old

(2) 18 years old

(3) 22 years old

(4) 30 years old

AI TONG SCHOOL

2025

PRELIMINARY EXAMINATION
PRIMARY 6

MATHEMATICS
PAPER 1
(Booklet B)

DURATION (Booklets A and B) : 1 h

DATE : 19 AUGUST 2025

INSTRUCTIONS

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.
6. Do not use highlighters on any part of your answers.
7. The use of calculators is **NOT** allowed.

Name :

Form Class :

姓名：

华文班：

Parent's signature:

_____

Marks:

Paper 1 (Booklet B)	**25**

- BLANK PAGE -

Paper 1 Booklet B

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)

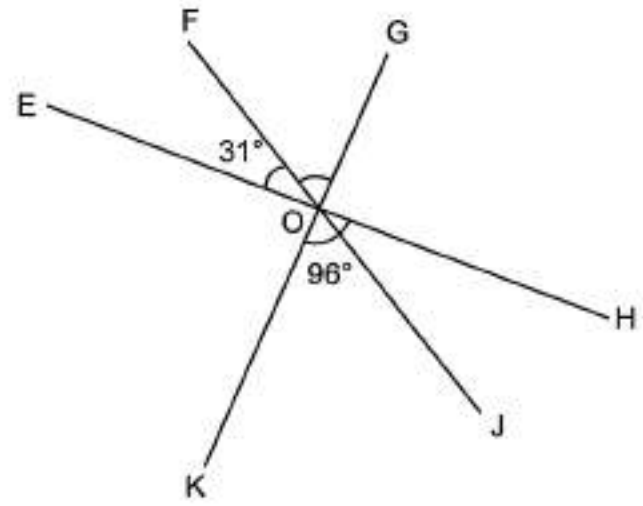
---

16 What is the value of $30 - (8 + 16) \div 3 \times 2$?

Ans: _____

---

17 In the figure, EOH, FOJ and GOK are straight lines.
$\angle EOF = 31°$ and $\angle KOH = 96°$. Find $\angle GOF$.



Ans: _____ °

---

18 Find the average of 15 , 17 , 0 and 4.

Ans: _____

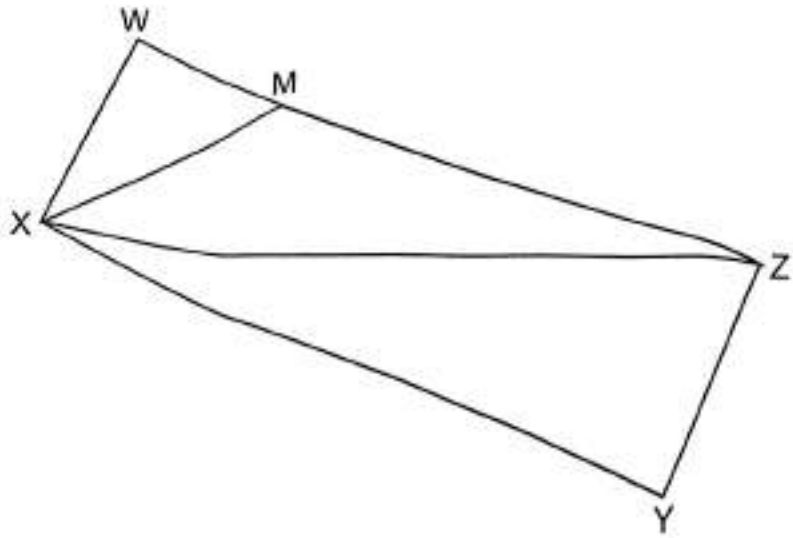
---

19 A ribbon was cut into two pieces in the ratio 3 : 5. The length of the longer piece was 35 cm. What was the length of the ribbon at first?

Ans: _____ cm

---

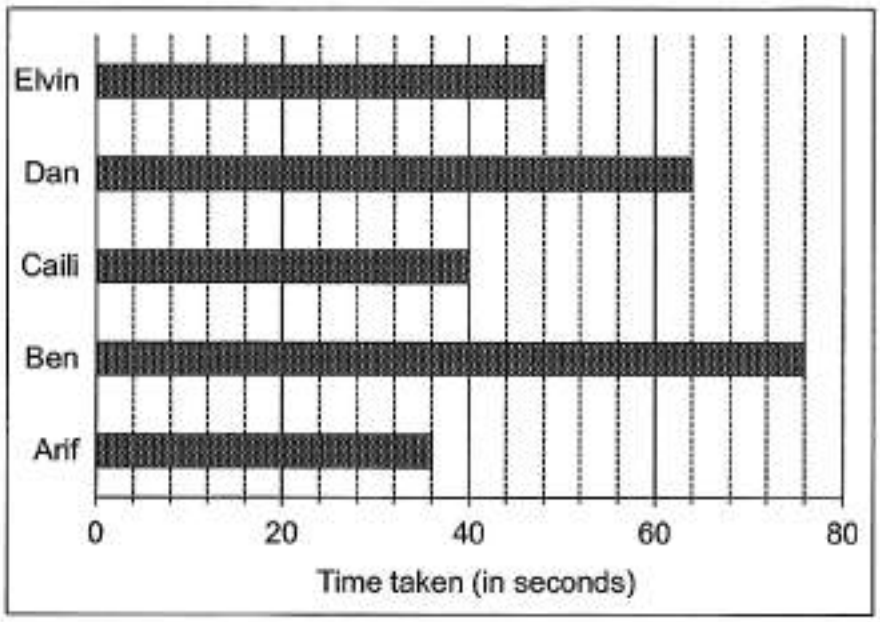
20 In the figure, WXYZ is a rectangle.
Measure and write down the height of Triangle XMZ when MZ is the base.



Ans: _____ cm

Questions **21** to **30** carry 2 marks each. Show your workings clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (20 marks)

21 The bar graph shows the time taken by 5 children to complete a race.



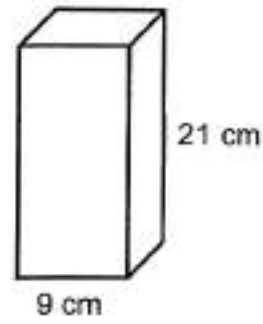
(a) Who was the fastest runner?

Ans: (a) _____

(b) How much longer did Dan take than Elvin to complete the race?

Ans: (b) _____ s

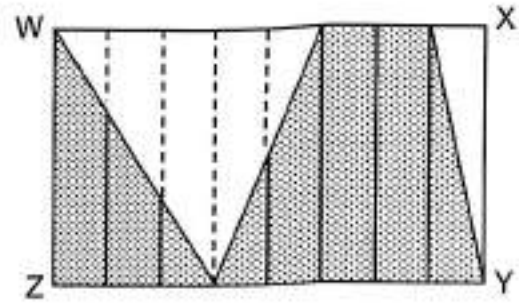
22 A solid cuboid of height 21 cm has a square base of side 9 cm.
What is its volume?



Ans: _____ cm^3

---

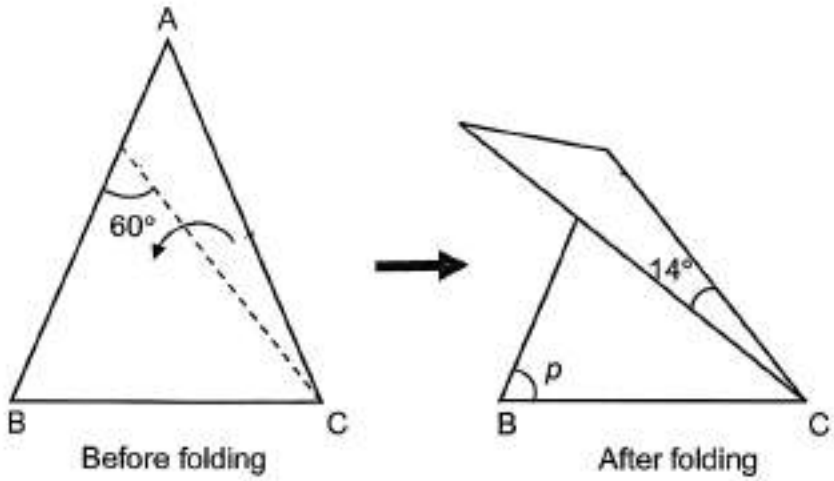
23 In the figure, rectangle WXYZ is made up of 8 identical smaller rectangles.
What fraction of rectangle WXYZ is shaded?
Express your answer in the simplest form.



Ans: _____

---

24 A triangular piece of paper ABC is folded along the dotted line as shown. AB = AC. Find $\angle p$.



Ans: _____ °

---

25 Jen wants to spend the least amount of money to buy 25 muffins. Each muffin is sold at $\$n$. How much will she pay for the muffins? Express your answer in terms of n.

Ans: $_____

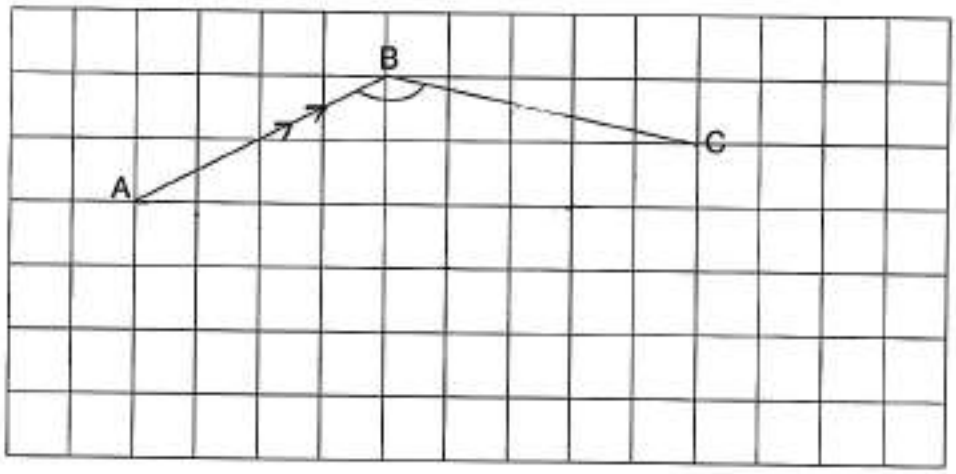
---

26 In the square grid, AB and BC are straight lines.

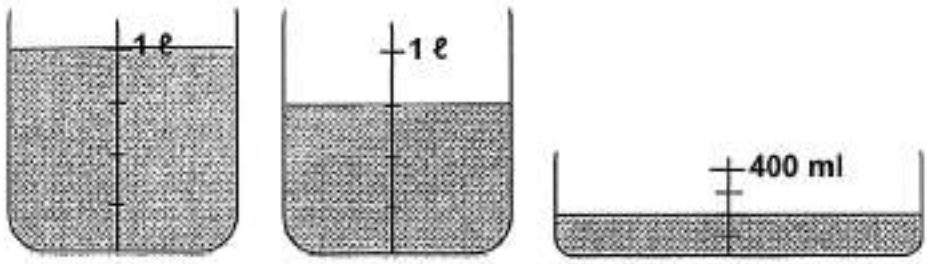
(a) Measure and write down the size of ∠ABC.

Ans: (a) _____ °

(b) AB and BC form two sides of a parallelogram ABCD.
Complete the drawing of the parallelogram ABCD. Label Point D.



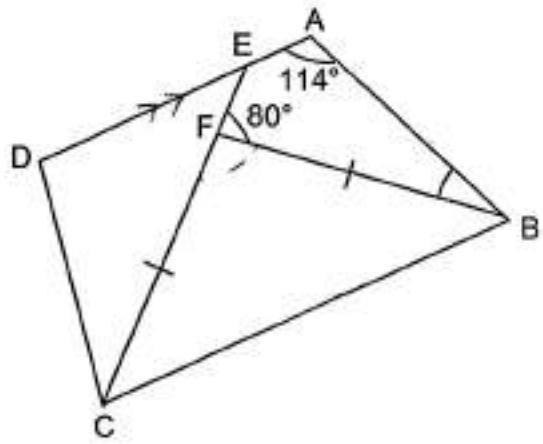
27 Three beakers are filled with some water.
What is the total volume of water in the three beakers?



Ans: _____ ℓ

---

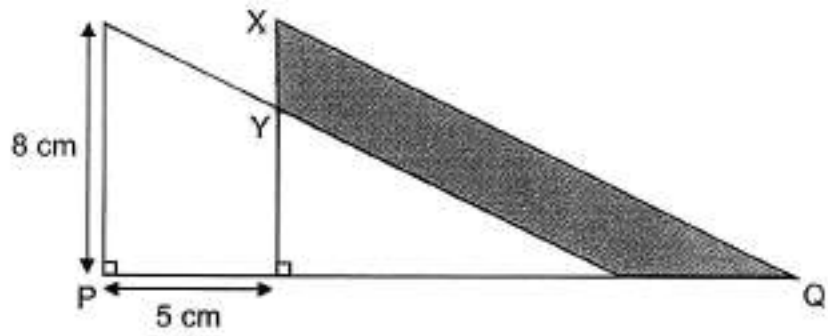
28 In the figure, ABCD is a trapezium with AD // BC.
BCF is an isosceles triangle. EFC is a straight line. Find ∠ABF.



Ans: _____ °

---

29 The figure is made up of two identical right-angled triangles overlapping each other. XY = 3 cm and PQ is a straight line.
Find the area of the shaded part.



Ans: _____ cm^2

---

30 A shop had some bags for sale. After selling 28 bags in the morning and $\frac{5}{8}$ of the remaining bags in the afternoon, $\frac{1}{4}$ of the bags were left unsold.
How many bags were sold altogether?

Ans: _____

End of Paper 1

AI TONG SCHOOL

2025

PRELIMINARY EXAMINATION

PRIMARY 6

MATHEMATICS
PAPER 2

DURATION : 1 h 30 min

DATE : 19 AUGUST 2025

INSTRUCTIONS

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.
6. Do not use highlighters on any part of your answers.
7. The use of an approved calculator is allowed.

Name : _____

Form Class : _____

姓名：_____

华文班：_____

Parent's signature:

_____

Marks :

Paper 1	/45
Paper 2	/55
Total	/100

- BLANK PAGE -

Paper 2

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)

---

1 The table shows the water charges.

Volume of water	First 40 m^3	Each additional m^3
Water charges	\$1.40 per m^3	\$? per m^3

Mr Chan paid \$89 for using 60 m^3 of water.
How much did he pay per cubic metre for water consumption more than 40 m^3?

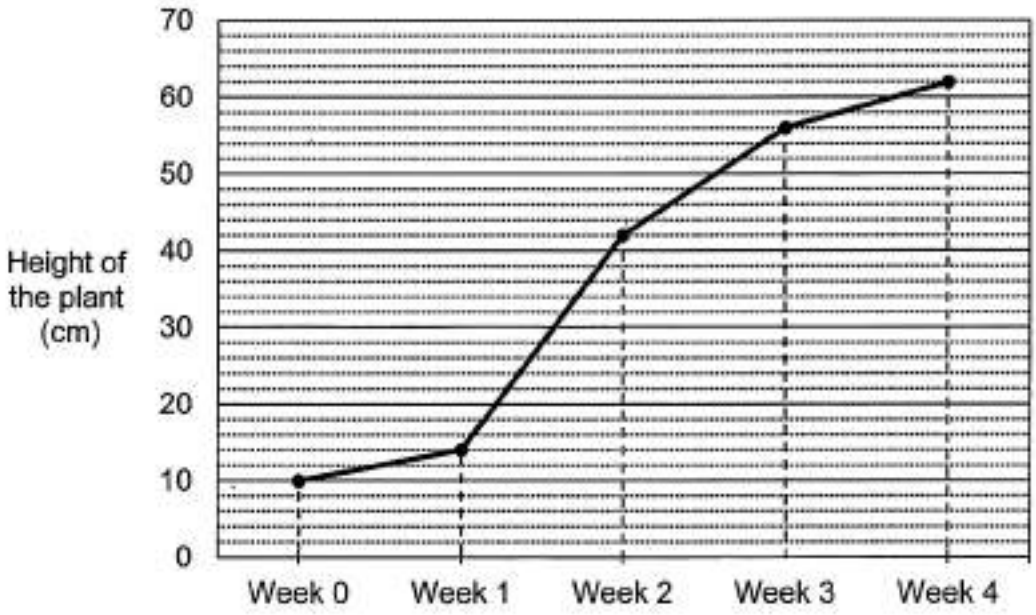
Ans : \$ _____

2 Deena had 2.07 kg of flour at first. She used 459 g of it.
How many kilograms of flour was left?

Ans: _____ kg

---

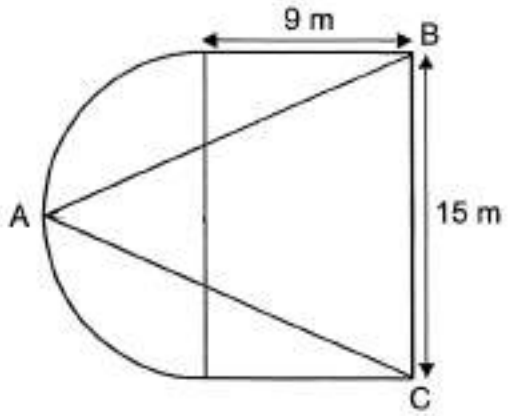
3 The line graph shows the growth of a plant over 4 weeks.



What was the percentage increase in the height of the plant from Week 1 to Week 3?

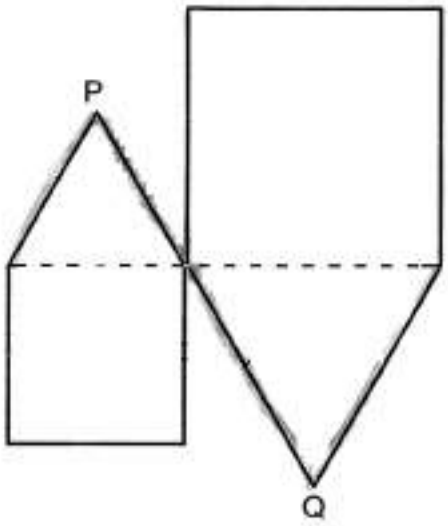
Ans: _____ %

4 Triangle ABC is an isosceles triangle that lies within a figure made up of a semicircle and a rectangle. AB = AC. Find the area of Triangle ABC.



Ans: _____ m^2

5 The figure is formed using 2 squares and 2 equilateral triangles. The perimeter of the figure is 120 cm. PQ is a straight line. What is the length of PQ?

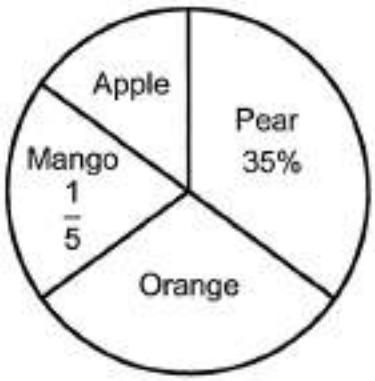


Ans: _____ cm

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

---

6 A group of students were asked to choose their favourite fruit in a survey conducted. The result was represented in the pie chart.



Half of the number of students chose mango or orange as their favourite fruit.

(a) What fraction of the students chose apple as their favourite fruit? Express your answer in its simplest form.

Ans : (a) _____ [1]

(b) Each of the statements below is either true, false or not possible to tell from the information given. Put a tick (✓) to indicate your answer. [2]

Statement	True	False	Not possible to tell
More students chose orange than pear as their favourite fruit.			
20 students chose mango as their favourite fruit.			
More students were surveyed and all of them chose mango as their favourite fruit. The percentage of students who chose apple as their favourite fruit remained the same.			

7 Figure 1 shows an empty container with a rectangular base area of 30 cm^2.

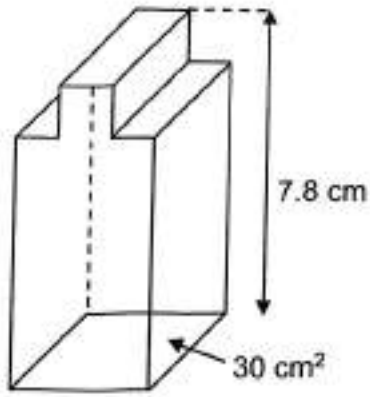


Figure 1

Then, the container was filled with some water. Figure 2 shows the front view of the container and Figure 3 shows the container turned upside down.

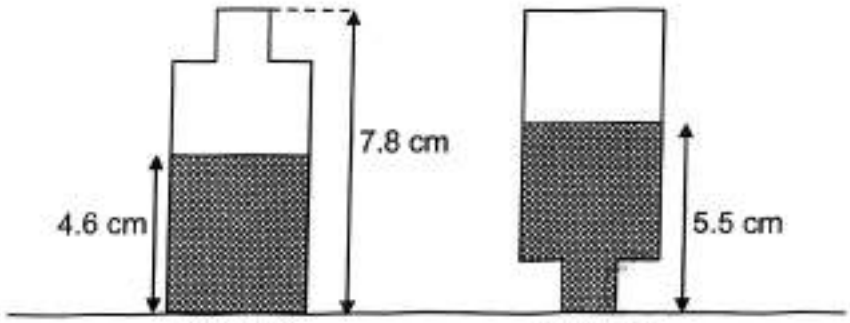
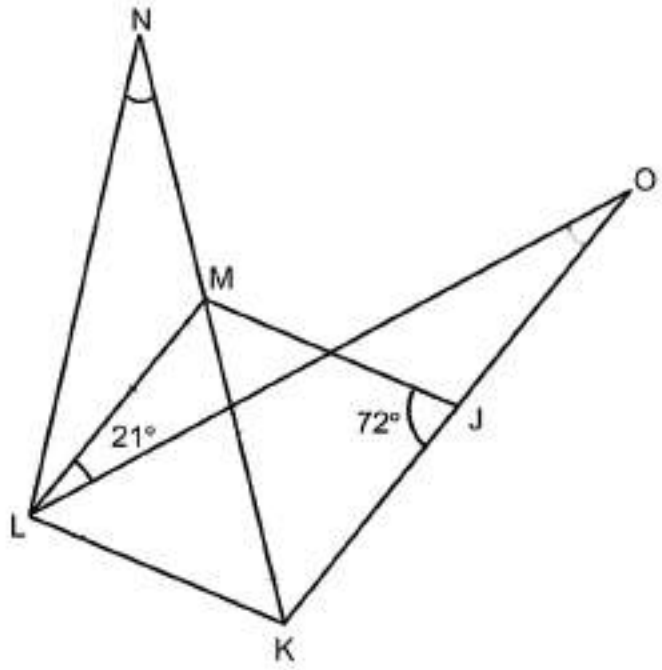


Figure 2 Figure 3

What is the capacity of the container?

Ans: _____ [3]

JKLM is a rhombus. KLN and KLO are triangles. LM = MN.



(a) Find ∠LOK.

Ans: (a)_____ [1]

(b) Find ∠LNM.

Ans: (b)_____ [2]

9 Kai read part of a book in the morning. The ratio of the number of pages he read to the number of pages that were unread was 6 : 5. After reading another 195 pages of the book in the afternoon, Kai still had 10% of the book unread.
How many pages were there in the book?

Ans: _____ [3]

10 Town X and Town Y were 455 km apart. Sam left Town X for Town Y, travelling at a constant speed of 85 km/h. At the same time, Dan left Town Y for Town X, travelling along the same route at a constant speed of 90 km/h.
How long had they travelled when they met each other?
Express your answer in h and min.

Ans: _____ [3]

11 A fruit seller had some mangoes. He sold $\frac{2}{5}$ of them and donated 104 of them. He was left with $\frac{1}{3}$ of the mangoes and packed them into 24 bags. Some bags contained 4 mangoes each while the rest contained 6 mangoes each.

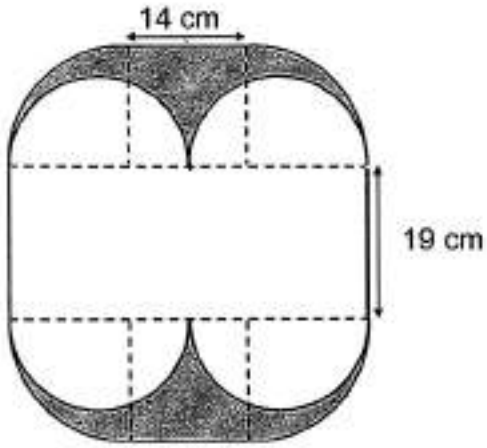
(a) How many mangoes were packed?

Ans: (a)_____ [2]

(b) How many bags contained 6 mangoes each?

Ans: (b)_____ [2]

The figure is made up of four identical quarter circles, two identical squares of sides 14 cm and a rectangle of breadth 19 cm. Four identical semicircles lie within the figure.



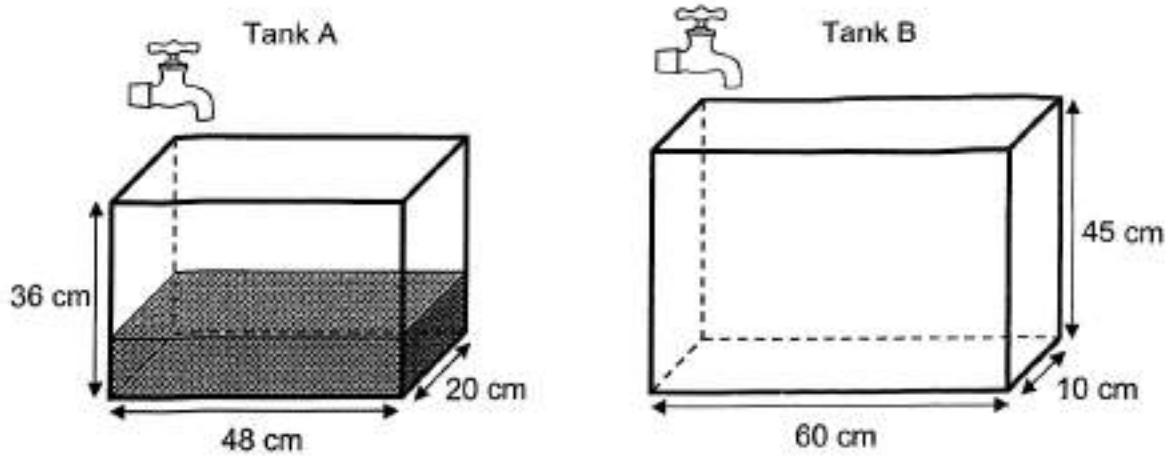
(a) Find the perimeter of the **unshaded** part. (Take $\pi = 3.14$)

Ans: (a) _____ [2]

(b) Find the area of the shaded parts. (Take $\pi = 3.14$)

Ans: (b) _____ [3]

13 Two rectangular tanks, Tank A and Tank B, are shown below.



At first, Tank A was $\frac{1}{3}$ - filled with water and Tank B was empty.

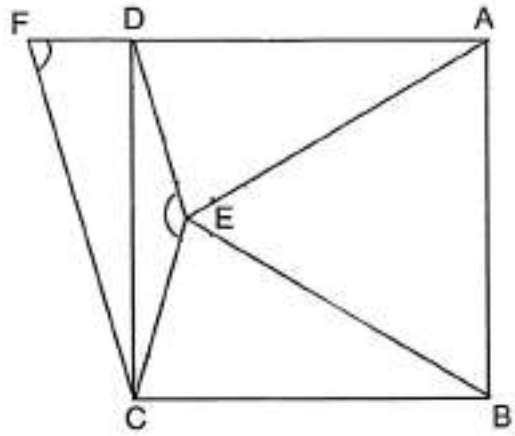
(a) What was the volume of water in Tank A at first?

Ans: (a)_____ [2]

(b) Both taps were then turned on at the same time. Water from both taps flowed at the same rate of 2.4 litres per minute. How long did it take for the height of the water in both tanks to be the same?

Ans: (b) _____ [3]

14 In the figure, ABCD is a square. ABE is an equilateral triangle and DECF is a trapezium. DE is parallel to FC, and FDA is a straight line.



(a) Find ∠DEC.

Ans: (a) _____ [2]

(b) Find ∠DFC.

Ans: (b) _____ [2]

15 Selvi used rods to form figures that follow a pattern.
The first four figures are shown.


Figure 1


Figure 2


Figure 3


Figure 4

Figure	Number of rods used
1	7
2	10
3	12
4	15

(a) What is the difference between the number of rods used for Figure 7 and Figure 9?

Ans: (a) _____ [1]

(b) How many rods would she use for Figure 99?

Ans: (b) _____ [2]

16 Three girls, Mabel, Candy and Lilian, had the same number of coins. Mabel had only twenty-cent coins. Candy and Lilian each had a mix of twenty-cent and one-dollar coins. Candy had 36 one-dollar coins while Lilian had 13 one-dollar coins.

(a) Of the three girls, who had the least and who had the most amount of money?

Ans: (a) Least :_____

Most : _____ [1]

(b) Candy used half of her one-dollar coins and some of her twenty-cent coins to buy a book that cost $20.40. How many twenty-cent coins did Candy use?

Ans: (b) _____ [2]

(c) What was the difference in the total value of Mabel and Lilian's coins?

Ans: (c) _____ [2]

17 There were 16 more students in Team A than in Team B in a competition.
$\frac{1}{4}$ of the students in Team A and $\frac{3}{7}$ of the students in Team B were girls.
The number of boys was twice the number of girls in the competition.
How many boys were there altogether?

Ans: _____ [4]

End of Paper

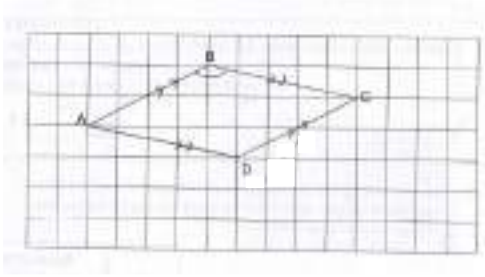
SCHOOL : AI TONG SCHOOL
LEVEL : PRIMARY 6
SUBJECT : MATHS
TERM : P6 PRELIM

Paper 1 Booklet A

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

Paper 1 Booklet B

Q16	30 – (8 + 16) ÷ 3 x 2 = 30 – (24 ÷ 3) x 2 = 30 – 8 x 2 = 30 – 16 = 14
Q17	96° - 31° = 65°
Q18	15 + 17 + 0 + 4 = 36 36 ÷ 4 = 9
Q19	35 ÷ 5 = 7 7 x 3 = 21 21 + 35 = 56cm
Q20	2.9cm
Q21(a)	Arif.
Q21 (b)	64 – 48 = 16s
Q22	9 x 9 x 21 = 1701cm³
Q23	8 – 3 = 5 shade $= \frac{5}{8}$
Q24	180° - 60° = 120° 180° - 120° - 14° = 46° 180° - 46° = 134° 134° ÷ 2 = 67°

Q25	\$2n → 3 muffins x 8 \$16n → 24 muffins + 1 \$17n → 25 muffins Ans: \$17n
Q26(a)	141°
Q26(b)	
Q27	1000 + 750 + 200 = 1950ml 1950ml = 1.95ℓ
Q28	180° - 114° = 66° 66° - 40° = 26°
Q29	8 – 3 = 5 , 5 x 5 = 25 $\frac{1}{2} x\ 3\ x\ 5 = 7.5$ 25 + 7.5 = 32.5 cm²
Q30	$1 - \frac{5}{8} = \frac{3}{8}$ $\frac{1}{4} \rightarrow \frac{3}{8}$ $\frac{4}{4} \rightarrow \frac{12}{8}$ 4p → 12 12 – 8 = 4 28 ÷ 4 = 7 7 x 5 = 35 35 + 28 = 63

SCHOOL : AI TONG SCHOOL
LEVEL : PRIMARY 6
SUBJECT : MATHS
TERM : P6 PRELIM

Paper 2

Q1	40 m^3 → 1.40 x 40 = 56 89 – 56 = 33 60 – 40 = 20 33 ÷ 20 = $ 1.65
Q2	2.07kg = 2070g 2070 – 459 = 1611g 1611g = 1.611 kg
Q3	56 – 14 = 42 $= \frac{42}{14} \; x \; 100\%$ = 300%
Q4	15 ÷ 2 = 7.5 7.5 + 9 = 16.5 $\frac{1}{2} \; x \; 16.5 \; x \; 15 = 123.75$ m^2
Q5	5 PQ = 120 cm 120 ÷ 5 = 24 cm
Q6(a)	50 – 35 = 15 A = $\frac{15}{100} = \frac{3}{20}$
Q6(b)	Each of the statements below is either true, false or not possible to tell from the information given. Put a tick (✓) to indicate your answer. [2]

Statement	True	False	Not possible to tell
More students chose orange than pear as their favourite fruit.		✓	
20 students chose mango as their favourite fruit.			✓
More students were surveyed and all of them chose mango as their favourite fruit. The percentage of students who chose apple as their favourite fruit remained the same.		✓	

Q7	4.6 x 30 = 138 2.3 x 30 = 69 138 + 69 = 207 cm^3
Q8 (a)	$\angle LOK = 180° - 108° - 51°$ $= 21°$
Q8 (b)	$\angle LMK = 180° - 126° = 54°$ $\angle LNM = 54° \div 2$ $= 27°$
Q9	Read : Unread 6 : 5 10% = 60 : 50 195R → 90 : 10 9 : 1 6+5 = 11 99 : 11 99 – 60 = 39 195 ÷ 39 = 5 5 x 110 = 550 pages
Q10	85 + 90 = 175 $455 \div 175 = 2.6$ $= \frac{60}{100}\ x\ 60 = 36$ $2.6h = 2h\ 36min$
Q11(a)	$\frac{2}{5} = \frac{6}{15}$ $1 - \frac{6}{15} = \frac{9}{15}$ $\frac{9}{15} - \frac{5}{15} = \frac{4}{15}$ → 104 104 ÷ 4 = 26 26 x 5 = 130
Q11(b)	Assume: 4 mangoes in every bag 24 x 4 = 96 130 – 96 = 34 6 – 4 = 2 34 ÷ 2 = 17

Q12(a)	7 + 14 = 21 , 21cm = diameter of semi circle 21 x 3.14 = 65.94 65.94 x 2 = 131.88 131.88 + 38 = 169.88cm
Q12(b)	$\frac{1}{4}$ x 14 x 14 x 3.14 = 153.86 14 x 14 = 196 196 + 153.86 + 153.86 = 503.72 10.5 x 10.5 x 3.14 = 346.185 503.72 – 346.185 = 157.535 157.535 x 2 = 315.07cm²
Q13(a)	$\frac{1}{3}$ x 48 x 20 x 36 = 11520cm³
Q13(b)	48 x 20 x 36 = 34560 34560 – 11520 = 23040 48 x 20 = 960 60 x 10 = 600 Difference in minute → 4 – 2.5 = 1.5 12 ÷ 1.5 = 8 minutes
Q14(a)	$ABCB = 360°$ $\angle B = 30°$ $180° - 30° = 150°$ $150° \div 2 = 75°$ $\angle DEC = 300° - 75° - 75° = 150°$
Q14(b)	$180° - 150° = 30°$ $30° \div 2 = 15°$ $90° + 15° = 105°$ $\angle DFC = 180° - 105° = 75°$
Q15(a)	27 – 22 = 5
Q15(b)	99 - 1 = 98 98 ÷ 2 = 49 49 x 5 = 245 245 + 7 = 252

Q16(a)	Least: Mabel Most: Candy
Q16(b)	36 ÷ 2 = 18 20.40 – 18 = 2.40 2.40 ÷ 0.20 = 12
Q16(c)	30 x 0.20 = 6 13 + 3.4 = 16.40 30 – 13 = 17 16.40 – 6 = **$10.40** 17 x 0.20 = 3.40
Q17(b)	A → G : B : T 1 : 3 : 4 x 2 = 2: 6: 8 B → G : B : T 3 : 4 : 7 8 – 7 = 1 1u = 16 10u = 160