



Mock Paper 14 Aug 2025 23:39

Foundation Tier — Total Marks: 80

Time allowed: 1 hour and 30 minutes

Instructions

Question 1

Write 48% as a decimal.

.....

(Total for Question 1 is 1 mark)

Question 2

Write 4729 correct to the nearest hundred.

.....

(Total for Question 2 is 1 mark)

Question 3

Write down a number that is less than -8.

.....

(Total for Question 3 is 1 mark)

Question 4

Here is a grid of squares. What fraction of the grid is shaded?

.....

(Total for Question 4 is 1 mark)

Question 5

Write down the value of the 7 in the number 46.078.

.....

(Total for Question 5 is 1 mark)

Question 6

The pictogram shows information about the number of standard bikes, electric bikes and cargo bikes rented by Station A on Friday.

Standart	   
Electric	    
Cargo	

Key:

Represents 8 stations

20 cargo bikes were rented by Station A.

(a) Complete the pictogram for Cargo.

.....
(1 mark)

On the same day, Station B had a total of 80 rentals.

(b) Which station had more rentals, Station A or Station B?

You must show how you get your answer.

.....
(3 marks)

(Total for Question 6 is 4 marks)

Question 7

Ravi is swimming lengths of a swimming pool.
Each length of the pool is 20 m.
Ravi has swum 100 lengths of the pool.
He wants to swim a total distance of 3200 m.

Calculate how many more lengths Ravi needs to swim.

.....

(Total for Question 7 is 3 marks)

Question 8

Here are the first four terms of a number sequence:

82 77 72 67

- (a) Explain how to work out the next number of the sequence.

.....
(1 mark)

- (b) Work out the difference between the 6th term and the 9th term of the sequence.

.....
(2 marks)

- (c) Explain why 47 is **not** a number in this sequence.

.....
(1 mark)

(Total for Question 8 is 4 marks)

Question 9

Sam buys a 14 kilogram bag of cat food.

Sam's cat has 4 meals a day.

He gives his cat 100 grams of cat food for each of these meals.

How many complete weeks will the bag of cat food last?

You must show all your working.

.....
(Total for Question 9 is 5 marks)

Question 10

Here is a polygon.

(Image of a regular hexagon)

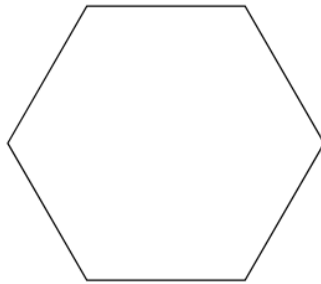
(a) Write down the mathematical name of this polygon.

Here is a prism.

(Image of a hexagonal prism)

Each edge of the prism has a length of 6 cm.

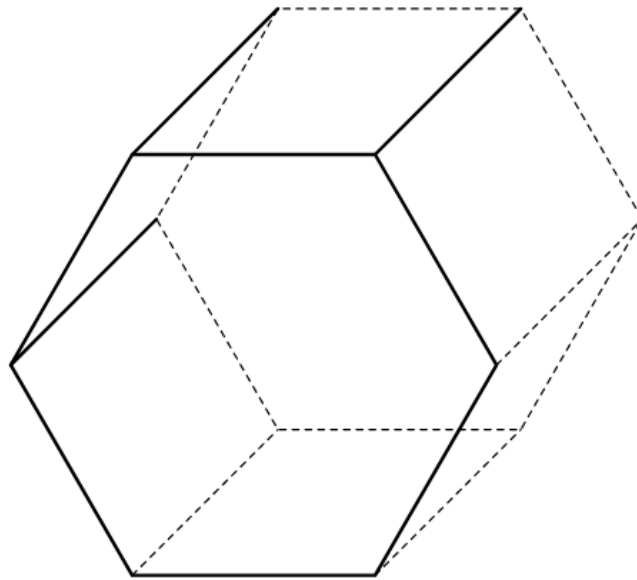
(b) Work out the total length of the edges of the prism.



(a) Write down the mathematical name of this polygon.

.....
(1 mark)

(b) Work out the total length of the edges of the prism.



..... cm
(2 marks)

(Total for Question 10 is 3 marks)

Question 11

There are only red counters, blue counters and green counters in a bag.
The ratio of red : blue : green counters is 4 : 8 : 5.
What fraction of the counters in the bag are green counters?

.....

(Total for Question 11 is 2 marks)

Question 12

A tennis match lasted $2\frac{5}{6}$ hours.
The match finished at 12:25.
At what time did the tennis match start?

.....
(Total for Question 12 is 2 marks)

Question 13

(a) Simplify $5x^4 + 11x^4 - 3x^4$

.....
(1 mark)

(b) Simplify $(15p + 21p) \div 6$

.....
(1 mark)

(Total for Question 13 is 2 marks)

Question 14

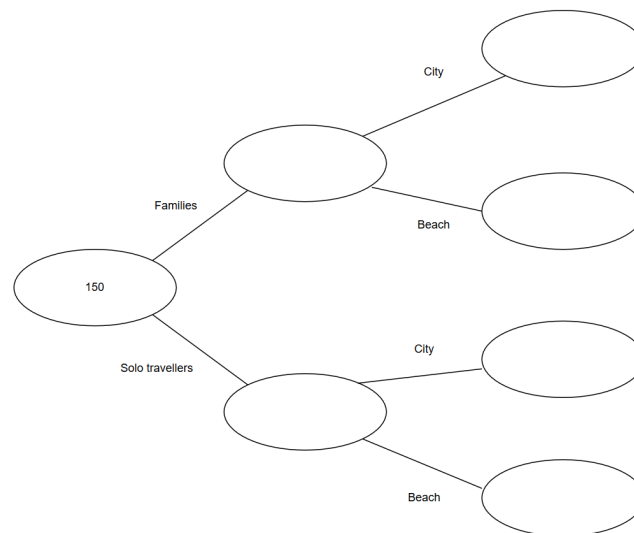
Write the following numbers in order of size, starting with the smallest:

0.47, 0.48, $\frac{5}{10}$, 51%, 0.52

.....
(Total for Question 14 is 2 marks)

Question 15

A tour company booked 150 trips in July.
 Each trip was either to a city or to a beach resort.
 96 of the trips were booked by families.
 The rest were booked by solo travellers.
 18 of the 30 city trips were booked by solo travellers.



(a) Use the given information to complete the frequency tree.

.....
 (3 marks)

(b) Find the probability that the chosen solo traveller's trip was to a beach resort.

.....
 (2 marks)

(Total for Question 15 is 5 marks)

Question 16

Solve $y_{5-6=-9}$

.....

(Total for Question 16 is 2 marks)

Question 17

Sophie works 25 hours a week in the UK.

She is paid £370 per week.

Sophie applies for a job in Canada with a rate of pay of 31.50 Canadian dollars per hour.

Given that 1 pound = 1.70 Canadian dollars,

is the rate of pay in Canada greater than the rate of pay in the UK?

Show your working.

.....

(Total for Question 17 is 3 marks)

Question 18

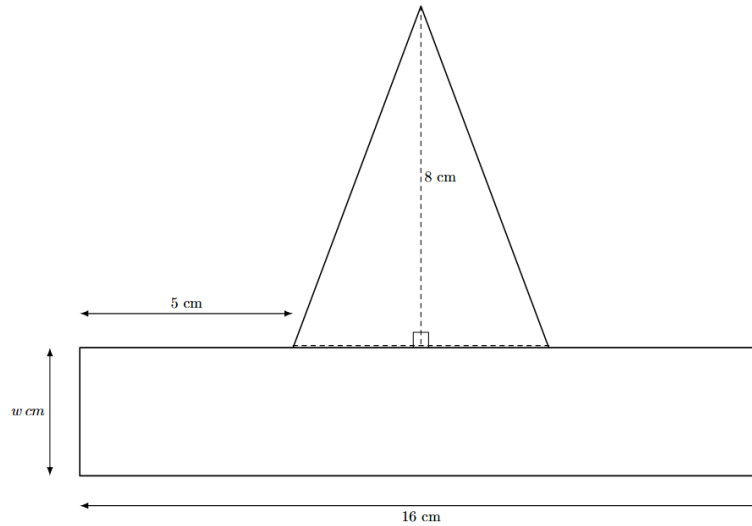
A garden design includes a rectangle with a triangular section on top.

The base of the triangle is centred on the rectangle, with 5 cm gaps on each side.

The triangle's height is 8 cm and the rectangle's length is 16 cm.

The area of the rectangle is 3 times the area of the triangle.

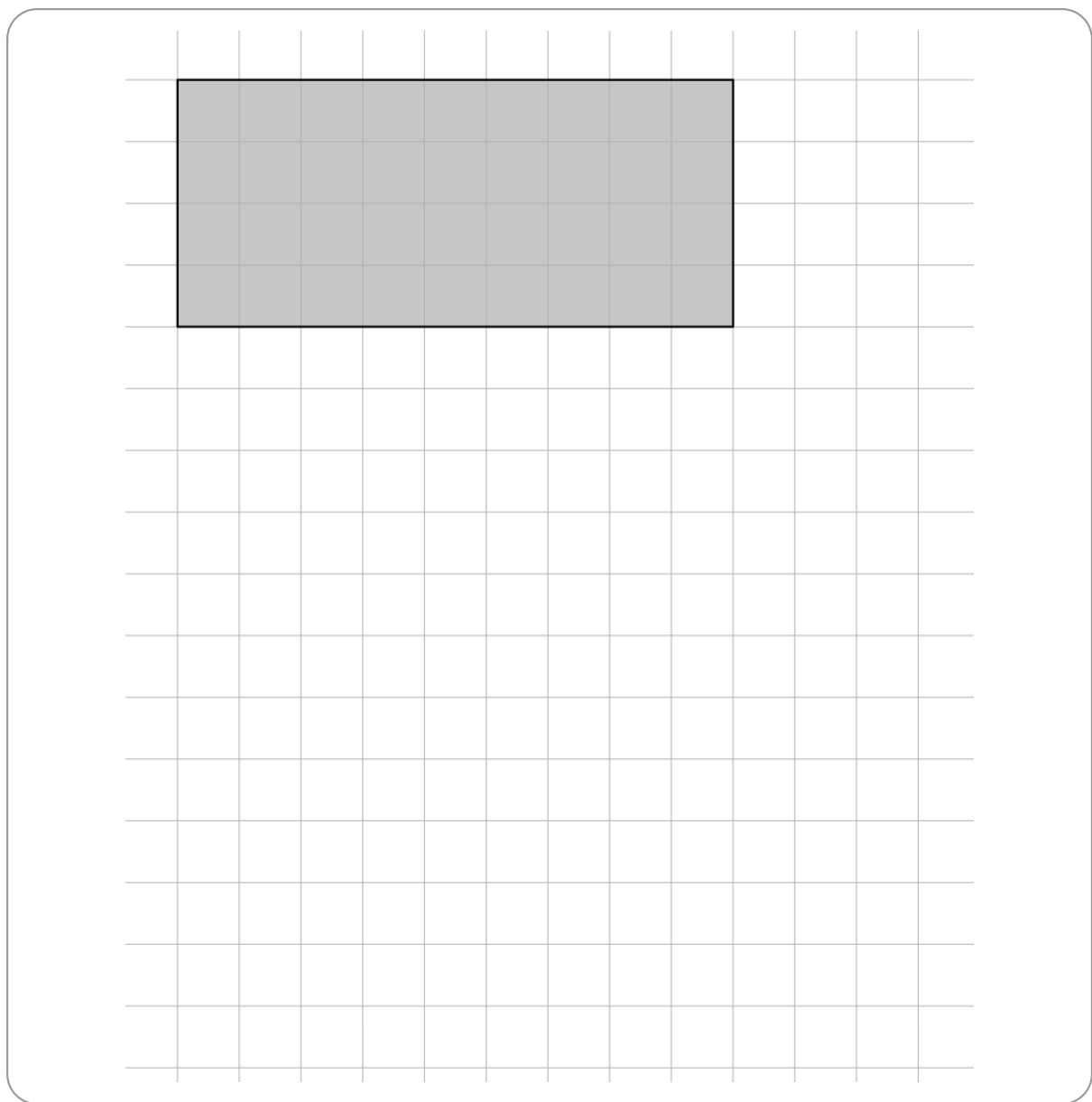
The width of the rectangle is w cm. Work out the value of w , showing all your working.



(Total for Question 18 is 4 marks)

Question 19

The front elevation of a cuboid is shown on the centimetre grid below.
 Each small square is 1 cm by 1 cm.
 The volume of the cuboid is 288 cm^3 .
 On the grid, draw the plan of the cuboid.



.....

(Total for Question 19 is 3 marks)

Question 20

- (a) Write 582 000 in standard form.
- (b) Write 7.204×10^{-3} as an ordinary number.

- (a) Write 582 000 in standard form.

.....
(1 mark)

- (b) Write 7.204×10^{-3} as an ordinary number.

.....
(1 mark)

(Total for Question 20 is 2 marks)

Question 21

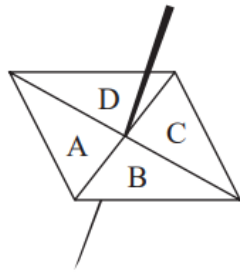
Here is a biased spinner.

The table shows the probabilities that when the spinner is spun it will land on A, B, C, or D.

Letter	A	B	C	D
Probability	0.18	0.36	0.27	0.19

Amira will spin the spinner 200 times.

Work out an estimate for the number of times the spinner will land on B.



.....

(Total for Question 21 is 2 marks)

Question 22

Kiran records the midday temperatures, $T^{\circ}\text{C}$, for 60 towns in Canada on a particular day. The grouped data are shown below:

Temperature ($T^{\circ}\text{C}$)	Frequency
$5 < T \leq 10$	4
$10 < T \leq 15$	10
$15 < T \leq 20$	18
$20 < T \leq 25$	20
$25 < T \leq 30$	8

Calculate an estimate for the mean temperature.

(a)

.....
(3 marks)

Kiran says, 'The median temperature is 17.5°C because that is the middle of the median group.'
Is Kiran correct? Give a reason for your answer.

(b)

.....
(2 marks)

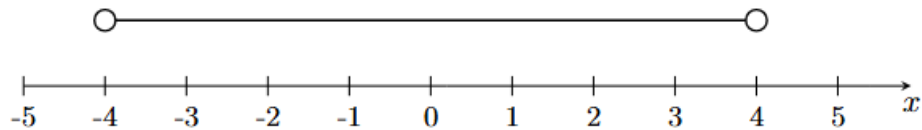
(Total for Question 22 is 5 marks)

Question 23

Maya is asked to show the inequality $-4 \leq x < 3$ on a number line.

Here is her answer:

(See diagram)



(a) Write down two mistakes Maya has made.

.....
(2 marks)

(b) Work out the greatest integer that satisfies the inequality
 $7z - 4 \leq 36$

.....
(2 marks)

(Total for Question 23 is 4 marks)

Question 24

Jamie buys packs of apples and boxes of oranges.

There are 20 apples in each pack.

There are 15 oranges in each box.

Jamie buys exactly the same number of apples and oranges.

Work out how many packs of apples and how many boxes of oranges he could have bought.

You must show all your working.

(a) Packs of apples:

.....
(2 marks)

(b) Boxes of oranges:

.....
(1 mark)

(Total for Question 24 is 3 marks)

Question 25

A printing company needs to print a large order of books.

It would take 18 hours to print all the books using 8 printers.

How many printers are needed to print all the books in 6 hours?

.....

(Total for Question 25 is 2 marks)

Question 26

Ella travelled by bus and then by train.

She travelled 156 miles by bus at an average speed of 48 miles per hour.
Ella then travelled for 4 hours and 30 minutes by train.

Work out, in hours and minutes, Ella's total travelling time.

.....

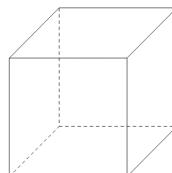
(Total for Question 26 is 3 marks)

Question 27

The diagram shows a solid cube placed on a horizontal table.

The pressure on the table due to the cube is 4.0 newtons/cm^2 .
The force exerted by the cube on the table is 576 newtons.

Show that the total surface area of the cube is less than 1000 cm^2 .



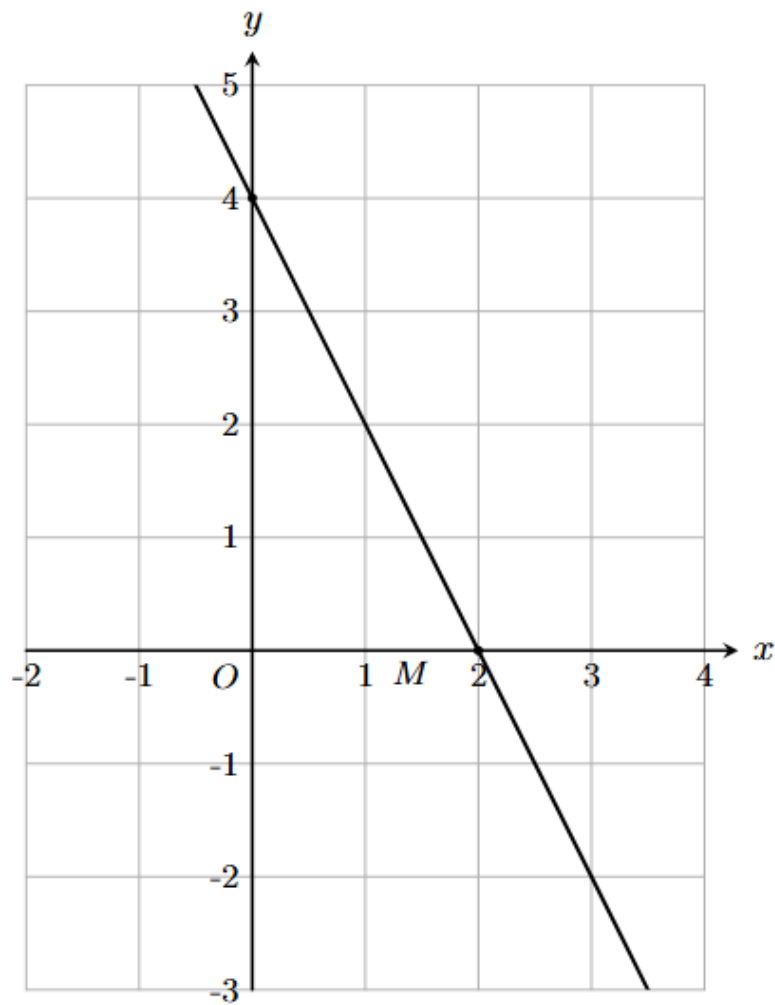
$$\text{pressure} = \frac{\text{force}}{\text{area}}$$

.....

(Total for Question 27 is 3 marks)

Question 28

The line M is shown on the grid.
Find an equation for M .



.....

(Total for Question 28 is 3 marks)

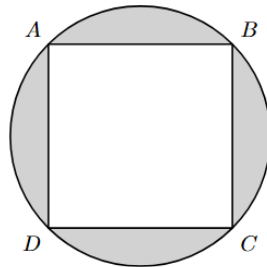
Question 29

A, B, C and D are points on a circle such that $ABCD$ is a square.

The square has side length 4.2 cm.

Calculate the circumference of the circle. Give your answer correct to 1 decimal place.

You must show all your working.



.....

(Total for Question 29 is 4 marks)

Total for Paper: 80 marks