

CANDIDATE
NAME

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CENTRE
NUMBER

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CANDIDATE
NUMBER

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0862/02

May 2026

1 hour

You must answer on the question paper.

You will need: Geometrical instruments
Tracing paper (optional)

INSTRUCTIONS

- Answer **all** questions.
- Use a black or dark blue pen. You may use an HB pencil for any diagrams or graphs.
- Write your name, centre number and candidate number in the boxes at the top of the page.
- Write your answer to each question in the space provided.
- Do **not** use an erasable pen. Do **not** use correction fluid or tape.
- Do **not** write on any bar codes.
- You should show all your working in the booklet.
- You may use a calculator.

INFORMATION

- The total mark for this paper is 50.
- The number of marks for each question or part question is shown in brackets [].

This document has **12** pages.

- 1 Find the exterior angle of a regular 15-sided polygon.

..... ° [1]

- 2 Calculate.

$$\sqrt{216} \times \sqrt{24}$$

..... [1]

- 3 Solve.

$$\frac{145}{p} = 5$$

$p =$ [1]

- 4 Write 70 000 in standard form.

..... [1]

- 5 Write the correct power in the box.

$$(x^7)^2 = x \boxed{}$$

[1]

- 6 Mike collects some data from each student in his class.

Draw a ring around the data that is quantitative.

name

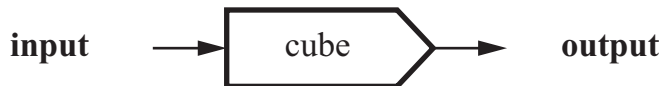
hair colour

height in cm

favourite food

[1]

- 7 Here is a function machine.



Complete the table for this function.

input	output
4	
	343

[2]

- 8 A bag contains 10 coloured counters.
6 are pink, 3 are white and 1 is brown.
Angelique picks a counter from the bag at random.

Find the probability that Angelique's counter is pink or white.

..... [1]

9 Solve the simultaneous equations.

$$5x - 4y = 18$$

$$2x + 4y = 24$$

$$x = \dots\dots\dots$$

$$y = \dots\dots\dots$$

[2]

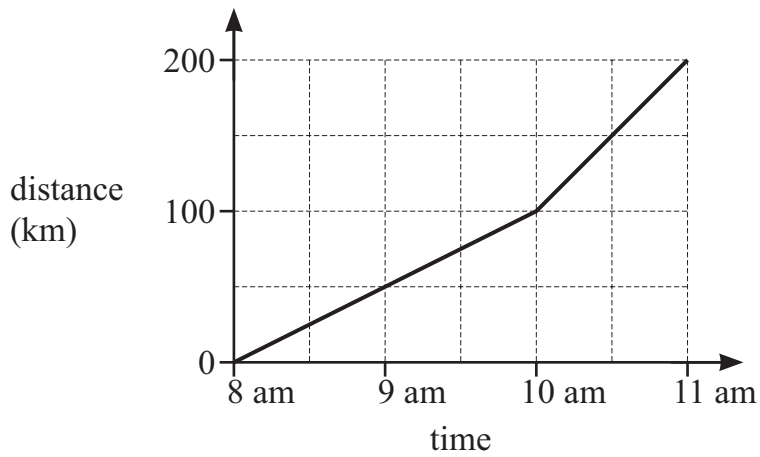
10 Write each of these three numbers in the correct place in the table.

−8 7 0.3

	an integer	not an integer
a natural number		
not a natural number		

[1]

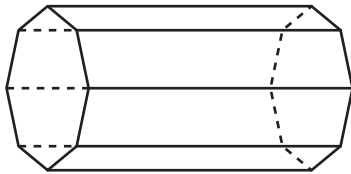
- 11 The diagram shows a distance–time graph for a car journey.



Calculate the speed of the car between 8 am and 10 am.
Give your answer in km/h.

..... km/h [1]

- 12 A prism has a cross-section that is a regular octagon.



not to scale

- (a) The area of the cross-section is 25 cm^2 .
The length of the prism is 14 cm.

Find the volume of the prism.

..... cm^3 [1]

- (b) Draw a ring around the number of planes of symmetry of this prism.

1

4

5

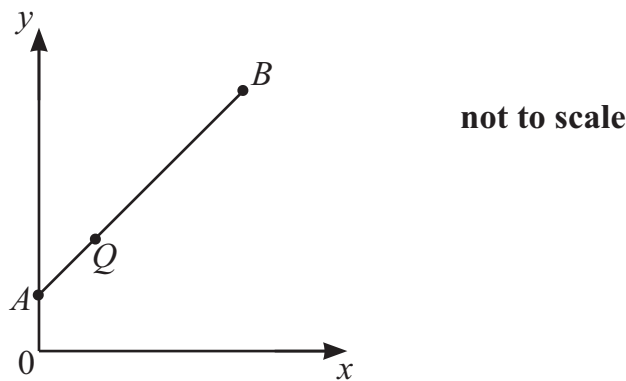
8

9

[1]

- 13** Point A has coordinates $(0, 3)$ and point B has coordinates $(16, 23)$.

Point Q lies $\frac{1}{4}$ of the way along the line AB from A .



Find the coordinates of point Q .

$Q = (\dots\dots\dots , \dots\dots\dots)$ [2]

- 14** Naomi wants to find the average height of plants in her garden.

She decides to take a sample of the plants.

Here is her plan to collect her sample.

At random, pick a part of the garden with an area of 1 m^2 .

Measure the heights of the five tallest plants in this 1 m^2 part of the garden.

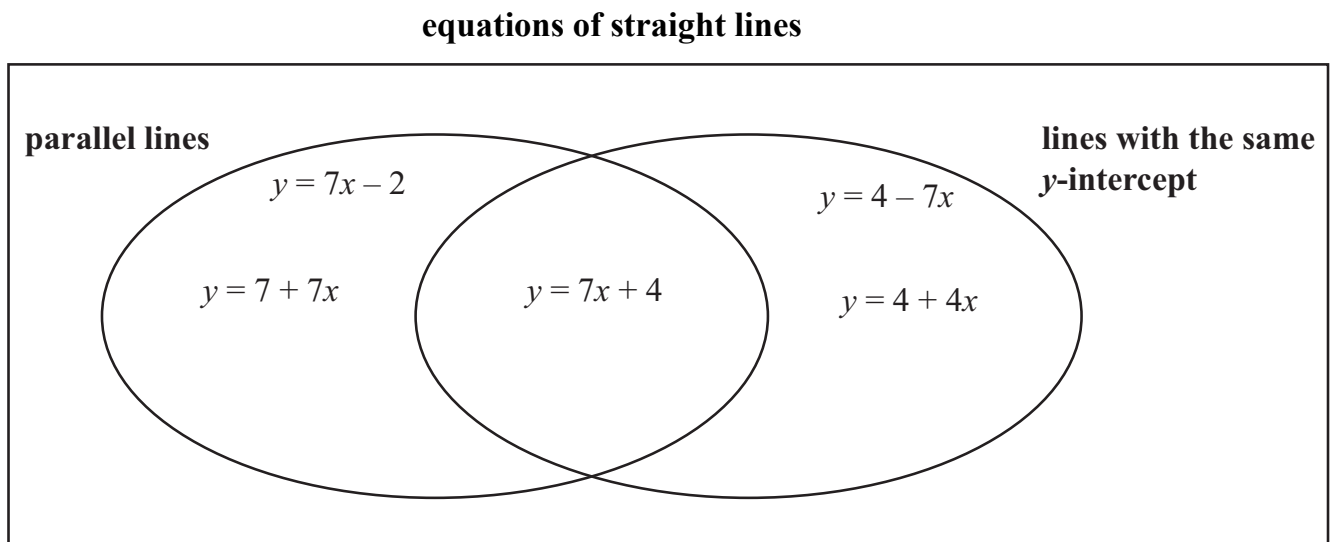
Give a reason why Naomi's sampling method may be biased.

.....
 [1]

- 15** A sequence has a term-to-term rule ‘multiply by h ’ where h is a constant.
 The 3rd term of the sequence is 7
 The 6th term of the sequence is 56
 Find the 5th term of the sequence.

..... [2]

- 16** Some equations of straight lines have been placed in the Venn diagram.



Write the equation $y = 4x + 7$ in the correct part of the Venn diagram.

[1]

- 17** Find the value of t and the value of w in these equations.

$$13^{10} \times 13^{-6} = 13^t$$

$$17 \times 17^3 \times 17^{-2} = 17^w$$

$$t = \dots\dots\dots$$

$$w = \dots\dots\dots$$

[2]

18 The table shows information about five different linear sequences.

sequence name	first four terms of sequence	how the sequence is related to sequence A	n th term
A	5, 7, 9, 11		$2n + 3$
B	7, 9, 11, 13	Add 2 to each term in sequence A	$2n + 5$
C			$2n - 7$
D		Multiply each term in sequence A by 3	
E	-5, -7, -9, -11		

Complete the table.

[3]

19 In 2024 a bike costs \$1200

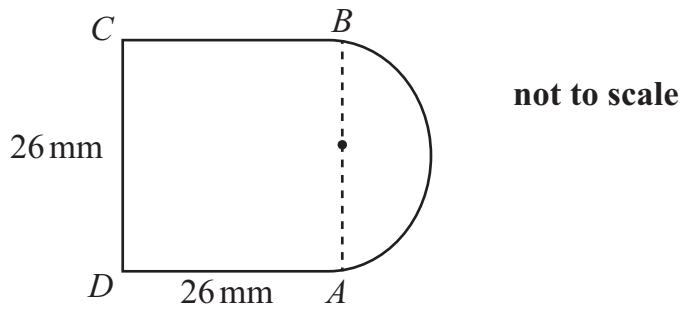
In 2025 the cost of the bike decreases by 5% of its cost in 2024

In 2026 the cost of the bike decreases by 10% of its cost in 2025

Find the final cost of the bike after both decreases.

\$ [2]

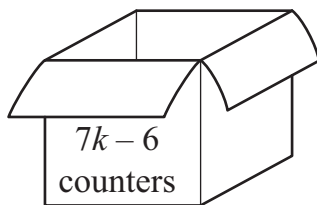
- 20** A shape is made by joining a semicircle with diameter AB to **square** $ABCD$. The square has a side length of 26 mm.



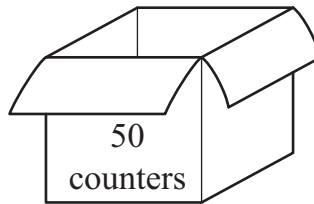
Find the area of the shape.

..... mm^2 [3]

- 21** Yuri has two boxes containing counters.



box C



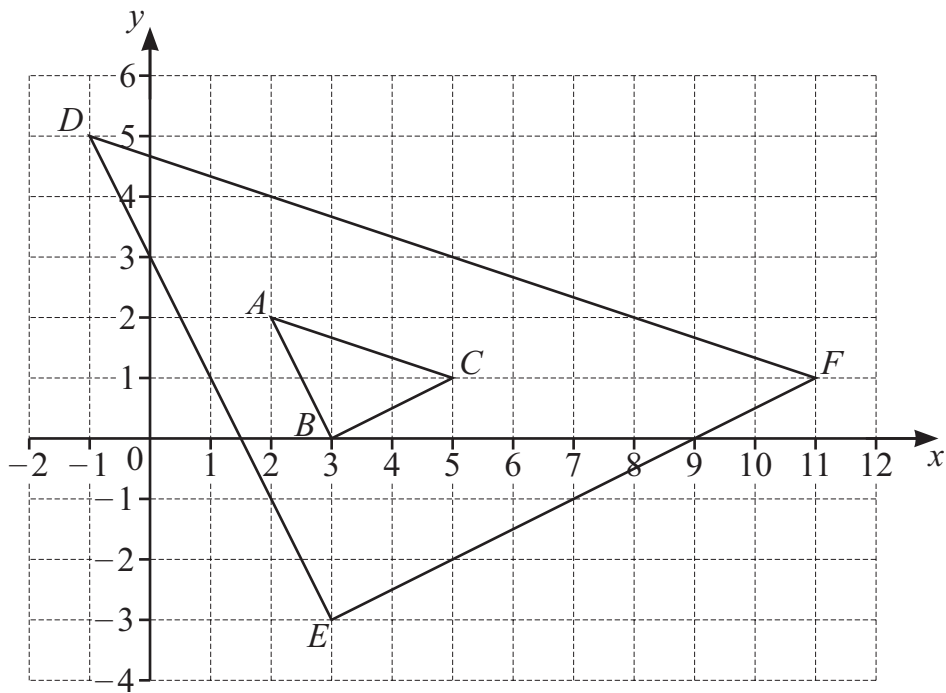
box D

Box C contains fewer counters than box D.
 k is an integer.

By writing and solving an inequality in terms of k , find the **greatest** possible number of counters in box C.

..... [4]

22 The diagram shows two triangles, ABC and DEF .



Describe fully the **single** transformation that maps triangle ABC onto triangle DEF .

.....
 [3]

23 The table gives some information about the heights of 20 horses.

height, h cm	frequency	midpoint	midpoint $\times$ frequency
$140 \leq h < 150$	2		
$150 \leq h < 160$	5		
$160 \leq h < 170$	10		
$170 \leq h < 180$	3		

Calculate an estimate of the mean height of the horses.

..... cm [3]

24 A wheel on Safia's car has a radius of 304 mm.
The wheel makes 28 complete revolutions as she drives in a straight line.

Show that Safia drives less than 60 metres.

[4]

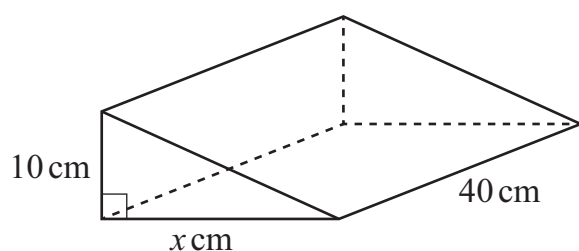
25 Here are the first five terms of a sequence.

4, 7, 12, 19, 28

Find the n th term of the sequence.

..... [2]

26 The diagram shows a triangular prism.
The cross-section is a right-angled triangle.



not to scale

The area of the **largest** face of the prism is 1040 cm^2 .

Find the value of x .

$x =$ [3]

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