CAMBRIDGE
International Education

Cambridge Lower Secondary Checkpoint

CANDIDATE NAME									
CENTRE NUMBER						CANDIDATE NUMBER			

8391324674

MATHEMATICS **0862/01**

Paper 1 **March 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 are **not** allowed to 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 **16** pages.

1 Work out the value of $10(n + 1)^4$ when $n = 1$

.....

[1]

2 Tick (✓) to show if each piece of data is qualitative or quantitative.

	qualitative	quantitative
The number of people in a room.	☐	☐
The hair colour of a person.	☐	☐

[1]

3 Eva writes these **incorrect** statements.

$6^0 = 0$
$15^2 \times 15^7 = 15^{14}$
$27^{12} \div 27^3 = 1^4$

Write a number in each box to make Eva's statements correct.
One has been done for you.

$6^0 =$ ☐

$15^2 \times 15^7 =$ 15 ☐

$27^{12} \div 27^3 =$ ☐ ☐

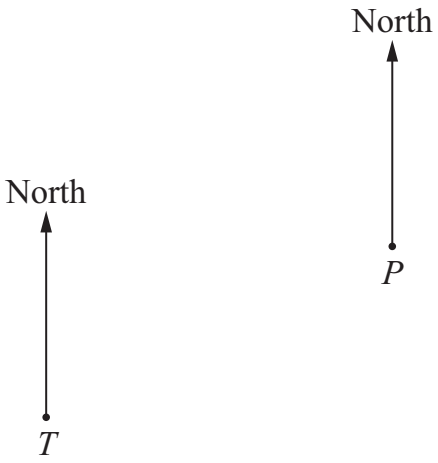
[3]

4 A square has a perimeter of 8 cm.
The square is enlarged so that the image has a perimeter of 88 cm.

Find the scale factor of the enlargement.

..... [1]

5 The diagram shows the position of tree T and pond P.



A bench, B, is on a bearing of 080° from T and on a bearing of 140° from P.

Mark the position of B on the diagram.

[2]

6 Work out.

$$2^3 + \left(2\frac{1}{2} + 1.5\right)^2$$

..... [2]

7 Here are the marks scored by two boys in their last six science exam papers.

Pierre	58%	62%	64%	67%	75%	77%
Yuri	74%	75%	77%	81%	83%	84%

Tick (✓) to show the correct word or words to complete each statement.

	mean	median	mode	
You cannot use the	☐	☐	☐	to compare the average mark for each boy.

	it is too high	it is too low	it does **not** exist
This is because	☐	☐	☐

[1]

8 $\frac{1}{15^8} = 15^p$

Find the value of p.

$p =$ ..... [1]

9 A is the point (0, 0) and C is the point (12, 4).
ABC is a straight line.
B is the point $(x, 1)$.

Find the value of x.

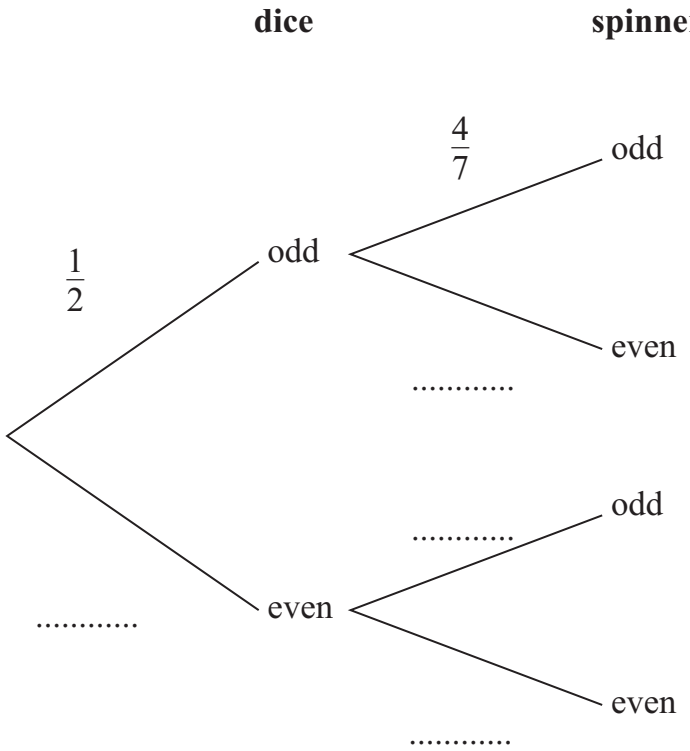
$x =$ ..... [1]

10 A sequence has an nth term of $\frac{n}{4}$

Find the 40th term in this sequence.

..... [1]

11 Safia rolls a fair dice.
She then spins a fair spinner with sides labelled 1 to 7
She records if her results are odd or even.
She starts to draw this tree diagram.



(a) Write the **four** missing probabilities on the tree diagram.

[2]

(b) A different spinner has a probability of $\frac{2}{5}$ of landing on a red section.
This spinner is spun 1500 times.

Work out the number of times this spinner is expected to land on a red section.

..... [1]

12 Tick (✓) to show if each of these combinations of transformations results in a final image that is congruent or **not** congruent to the original object.

	congruent	**not** congruent
A reflection in the line $x = 2$ followed by a translation of $\begin{pmatrix} -3 \\ 2 \end{pmatrix}$.	☐	☐
A rotation of 90° clockwise about (1, 2) followed by a reflection in the line $y = x$	☐	☐

[1]

13 Calculate.

$$\frac{4}{7} \div 2\frac{2}{3}$$

Give your answer as a fraction in its simplest form.

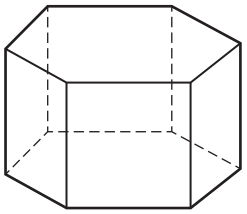
..... [3]

14 A **fraction**, f, lies in this interval $\frac{27}{56} < f < \frac{27}{53}$

Write a possible value of f.

$f =$ ..... [1]

15 The diagram shows a prism with a height of h cm.



not to scale

(a) The cross-section of the prism is a regular hexagon.

Write the number of planes of symmetry of this prism.

..... [1]

(b) The cross-section of the prism has an area of $50\,\text{cm}^2$.
The volume of the prism is $250\,\text{cm}^3$.

Calculate the value of h.

$h =$ ..... [1]

16 For the calculation $w \div d = 20$

w is a whole number
d is a decimal smaller than 1

Write a possible value for w and a possible value for d.

$w =$ .....

$d =$ .....

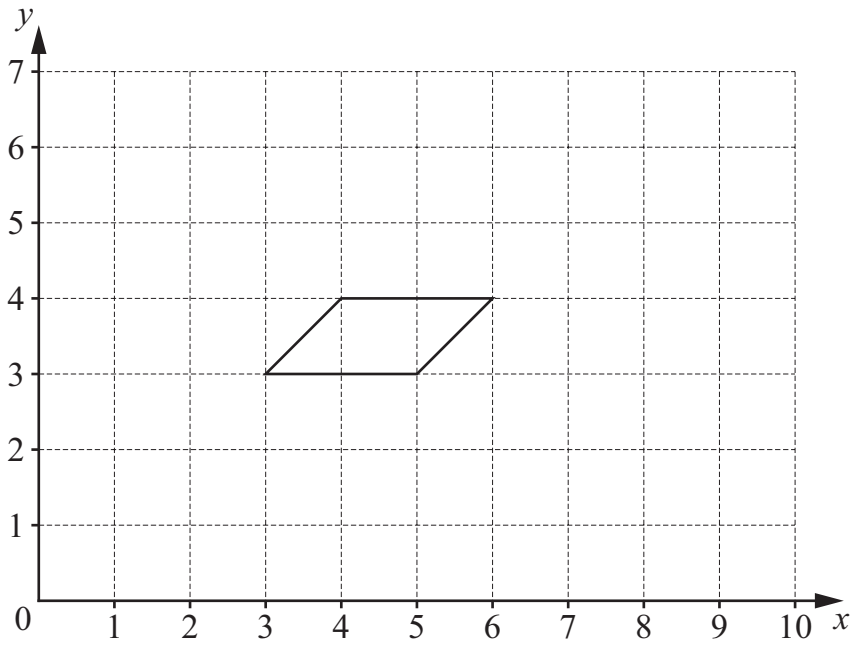
[1]

17 Solve.

$5x + 2 \geq 2x + 8$

..... [2]

18 The diagram shows a parallelogram on a grid.



The parallelogram is translated by $\begin{pmatrix} 3 \\ -1 \end{pmatrix}$.

Draw a ring around each of the coordinates that are vertices of the parallelogram after this translation.

(6, 2) (3, 7) (9, 5) (9, 3) (4, 6)

[1]

19 Solve the simultaneous equations.

$$x - 3y = -17$$
$$-2x + 3y = 19$$

$x =$ .....

$y =$ .....

[2]

20 Draw a ring around the value that is **closest** to $\sqrt[3]{60}$

3 4 8 20

[1]

21 The table gives some information about sequence A and sequence B.

Complete the table.

	first five terms of sequence	***n*th term of sequence**
sequence A	3, 6, 11, 18, 27	$n^2 + 2$
sequence B	4, 7, 12, 19, 28	

[1]

22 Work out.

40.5×10^{-3}

Give your answer as a decimal.

..... [1]

23 Polygons A, B and C are all **regular** polygons.
The table gives some information about the size of one interior angle of each polygon.

Tick (✓) to show which of these polygons will tessellate and which will **not** tessellate.
One has been done for you.

polygon	size of interior angle	will tessellate	will not tessellate
A	60°	✓	
B	108°		
C	120°		

[1]

24 Expand and simplify.

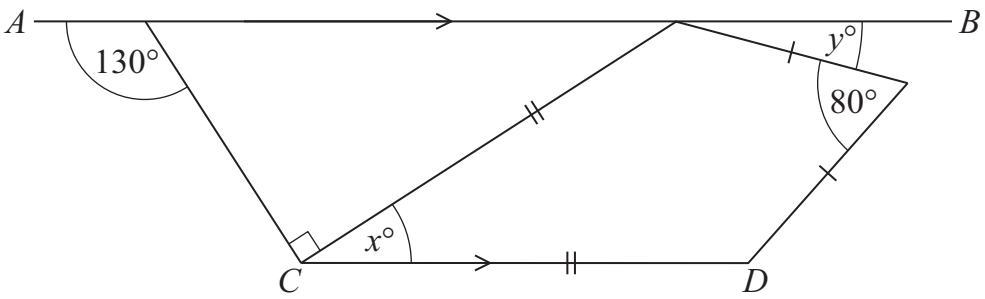
$(x + 10)(x - 3)$

..... [2]

25 Make m the subject of $m^2 - y = a^2$

$m =$ ..... [2]

26 The diagram shows a triangle and a kite drawn between two parallel lines, AB and CD.



not to scale

Find the value of x and the value of y.

$x =$ .....

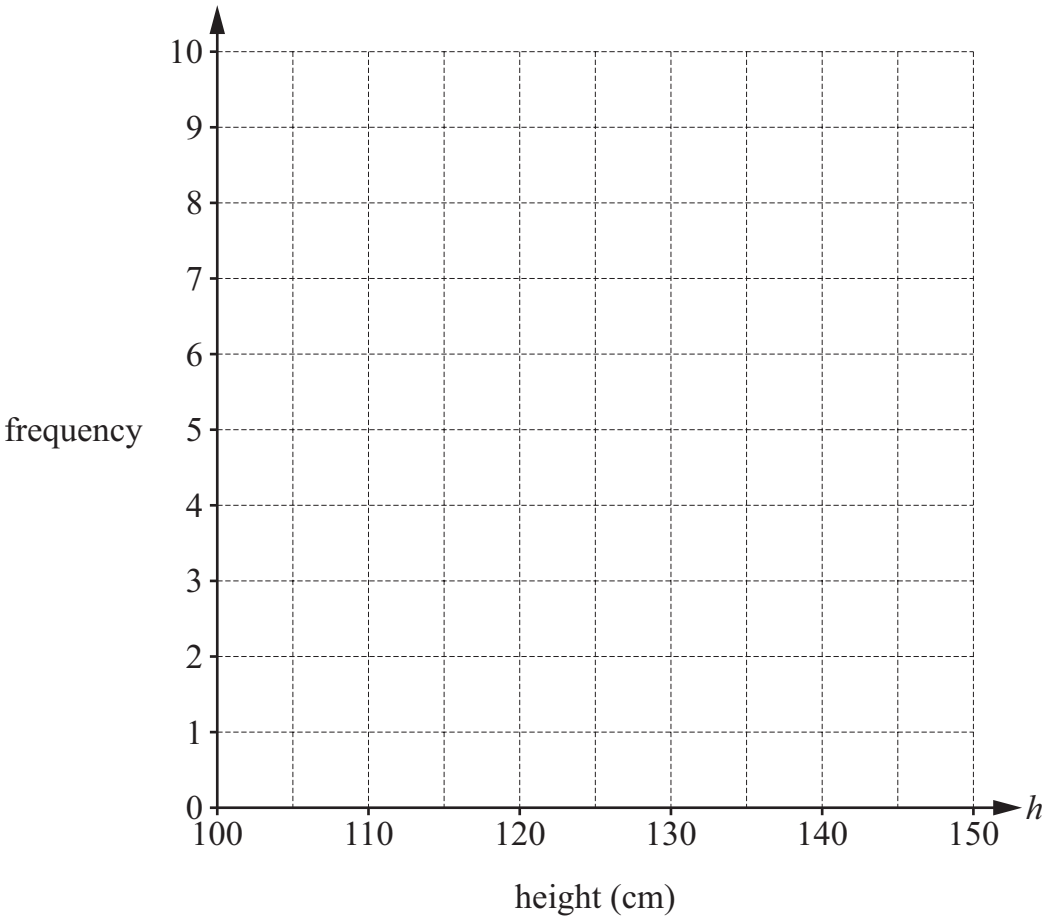
$y =$ .....

[4]

27 The table shows information about the heights of some children.

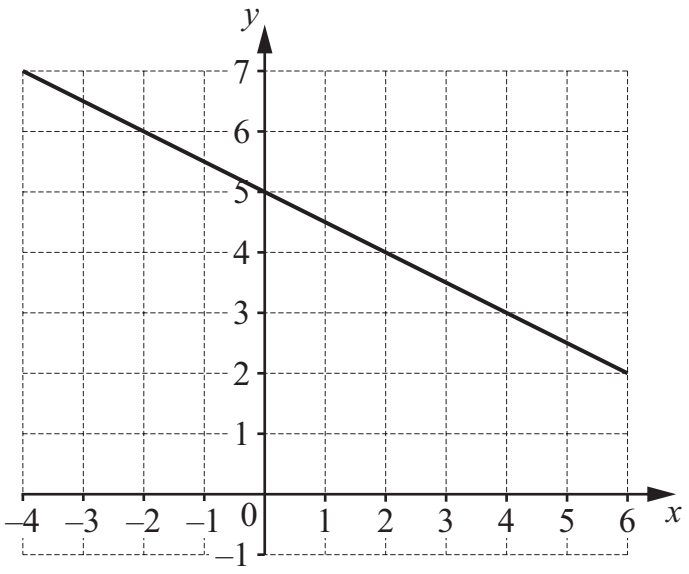
height (h, cm)	**frequency**
$100 \leq h < 110$	5
$110 \leq h < 120$	8
$120 \leq h < 130$	4
$130 \leq h < 140$	2
$140 \leq h < 150$	3

On the grid, draw a frequency polygon to show this information.



[3]

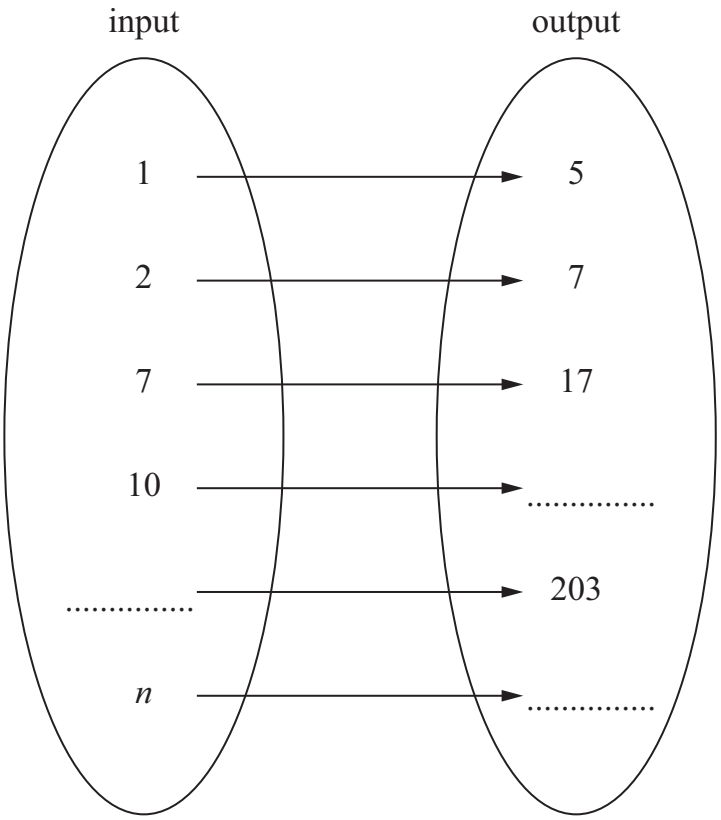
28 The diagram shows a line drawn on a grid.



Find the equation of the line.
Give your answer in the form $y = mx + c$

$y =$ ..... [2]

29 Here is a mapping diagram for a linear function.



Complete the mapping diagram.

[3]

