Cambridge Assessment International Education

Cambridge IGCSE™

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6305171948

CAMBRIDGE INTERNATIONAL MATHEMATICS **0607/11**

Paper 1 Non-calculator (Core) **October/November 2025**

1 hour 15 minutes

You must answer on the question paper.

You will need: Geometrical instruments

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 or correction fluid.
- Do **not** write on any bar codes.
- Calculators must **not** be used in this paper.
- You may use tracing paper.
- You must show all necessary working clearly. You will be given marks for correct methods even if your answer is incorrect.

INFORMATION

- The total mark for this paper is 60.
- The number of marks for each question or part question is shown in brackets [ ].

This document has **12** pages.

[Turn over

List of formulas

Area, A, of triangle, base b, height h.	$A = \frac{1}{2}bh$
Area, A, of circle of radius r.	$A = \pi r^2$
Circumference, C, of circle of radius r.	$C = 2\pi r$
Curved surface area, A, of cylinder of radius r, height h.	$A = 2\pi rh$
Curved surface area, A, of cone of radius r, sloping edge l.	$A = \pi rl$
Surface area, A, of sphere of radius r.	$A = 4\pi r^2$
Volume, V, of prism, cross-sectional area A, length l.	$V = Al$
Volume, V, of pyramid, base area A, height h.	$V = \frac{1}{3}Ah$
Volume, V, of cylinder of radius r, height h.	$V = \pi r^2 h$
Volume, V, of cone of radius r, height h.	$V = \frac{1}{3}\pi r^2 h$
Volume, V, of sphere of radius r.	$V = \frac{4}{3}\pi r^3$

Calculators must **not** be used in this paper.

1 **(a)** Work out.

$10 - 2 \times 3$

..... [1]

(b) Write the missing number in each box.

$$\begin{array}{r} 7\square 3.58 \\ +\ 20\square.\square 3 \\ \hline \square 30.2\square \end{array}$$

[2]

(c) Work out $(0.1)^2$.

..... [1]

2 Write 87.49 correct to the nearest whole number.

..... [1]

3 **(a)** Convert 0.5 metres to millimetres.

..... mm [1]

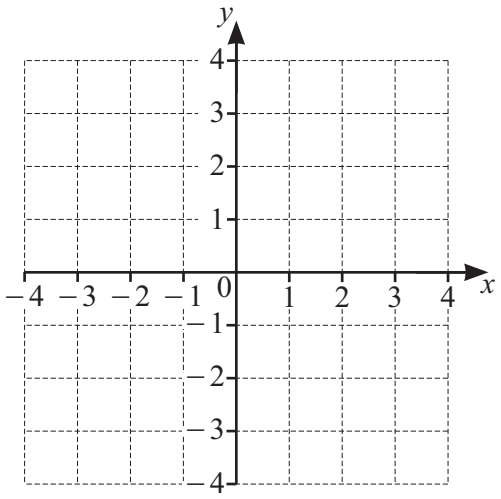
(b) Write 12 hours as a fraction of a day.

..... [1]

4 Write 0.67 as a percentage.

..... % [1]

5



(a) On the grid, plot the point (–3, 1). [1]

(b) The line L passes through the point (1, –2).
The gradient of line L is zero.

On the grid, draw the line L. [1]

6 The list shows the number of bedrooms in each of 12 houses.

3 5 5 2 4 2 3 4 2 1 1 3

(a) Find the median.

..... [2]

(b) Find the range.

..... [1]

7 Hamid walks at an average speed of 1.1 m/s.
He walks for 1 minute and 30 seconds.

Find the distance that Hamid walks.

..... m [2]

8 **(a)** Simplify.

$3a-3b+4a-2a+b$

..... [2]

(b) Simplify.

$\frac{7x}{2x^2}$

..... [1]

(c) Expand.

$8a(2a-5b)$

..... [2]

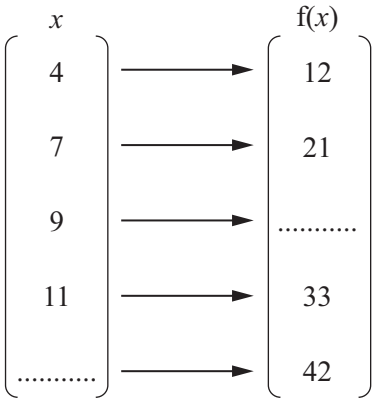
9 In a competition, Amal scores $\frac{2}{5}$ of her team's goals.

Amal scores 6 goals.

Work out the total number of goals Amal's team scores in the competition.

..... [2]

10 **(a)** Complete the mapping diagram.



[2]

(b) $g(x) = 5x - 4$

Find the value of x when $g(x) = 6$.

$x =$ ..... [2]

11 **(a)** Share \$280 in the ratio 5 : 2.

\$ ..... and \$ ..... [2]

(b) Write the ratio 180 : 360 : 480 in its simplest form.

..... : ..... : ..... [2]

12 These are the first 4 terms of a sequence.

1 5 9 13

(a) Write down the next term in this sequence.

..... [1]

(b) Explain why 31 is **not** in this sequence.

..... [1]

13 Use calculations to show that the interior angle of a regular octagon is 135°.

[2]

14 **(a)** $2^x = 64$

Find the value of x.

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

(b) $4^y = \frac{1}{4}$

Find the value of y.

$y =$ ..... [1]

15 These are the heights, in cm, of 12 flowers.

25	39	18	19	48	41
12	34	14	24	20	46

(a) Draw an ordered stem-and-leaf diagram for these heights.

1	
2	
3	
4	

Key ..... | ..... represents ..... cm
[3]

(b) Write down the fraction of these flowers with height less than 30 cm.

..... [1]

16 The area of a circle is $36\pi\,\text{cm}^2$.

Find the radius of the circle.

..... cm [2]

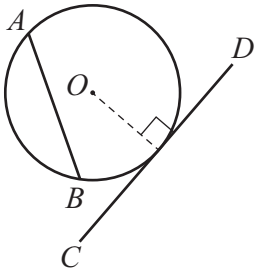
17 **(a)** Write down all the factors of 35.

..... [2]

(b) Find the lowest common multiple (LCM) of 30 and 54.

..... [2]

18 (a)



The diagram shows a circle, centre O, and the straight lines AB and CD.

Write down the mathematical name of

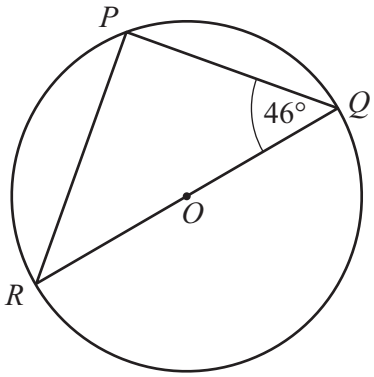
(i) the line AB

..... [1]

(ii) the line CD.

..... [1]

(b)



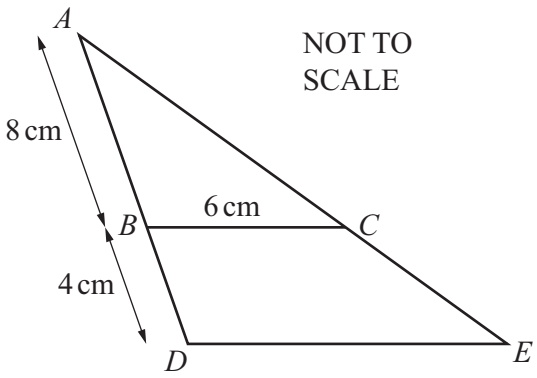
NOT TO SCALE

Points P, Q and R lie on a circle, centre O.
QR is a diameter.

Work out angle PRQ.

Angle PRQ = ... [2]

19



Triangle *ABC* and triangle *ADE* are mathematically similar.

Work out *DE*.

DE = ... cm [2]

20 Solve the simultaneous equations.

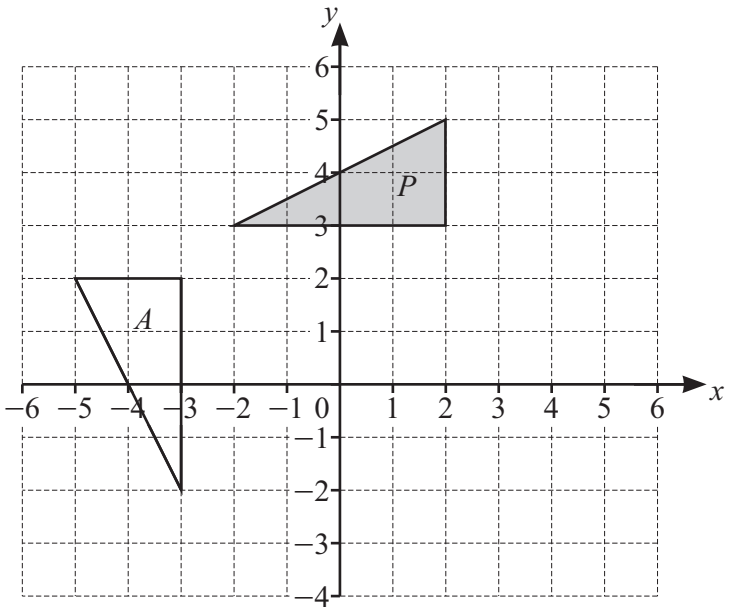
$$2x + 3y = 5$$
$$-4x + y = 11$$

x = ...

y = ...
[3]

Question 21 is printed on the next page.

21



(a) Describe fully the **single** transformation that maps triangle P onto triangle A.

.....

..... [3]

(b) Translate triangle P by the vector $\begin{pmatrix} 2 \\ -4 \end{pmatrix}$. [2]