Cambridge Assessment International Education

Cambridge IGCSE™

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3561931023

CAMBRIDGE INTERNATIONAL MATHEMATICS **0607/12**

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 Write the number 11 760

(a) in words

..... [1]

(b) correct to the nearest hundred.

..... [1]

2 **(a)** Write $\frac{7}{10}$ as a decimal.

..... [1]

(b) Work out $\frac{4}{9} \times \frac{3}{5}$.

Give your answer as a fraction in its simplest form.

..... [2]

3 These are the amounts of money, in dollars, that 10 people each give to charity.

1 5 3 1 9 5 4 3 7 1

(a) Write down the mode.

$ ..... [1]

(b) Work out the mean.

$ ..... [2]

(c) Show that the median is \$3.50 .

[2]

4 Work out.

(a) $\frac{-21}{-7}$

..... [1]

(b) $5^3 - 2^4$

..... [2]

5 **(a)** These are the first 5 terms of a sequence.

1 4 7 10 13

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

..... [1]

(ii) Explain how you know this is a linear sequence.

..... [1]

(iii) Find an expression for the nth term of this sequence.

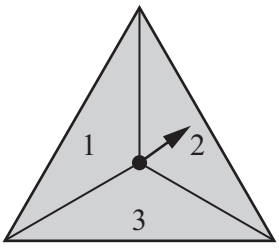
..... [2]

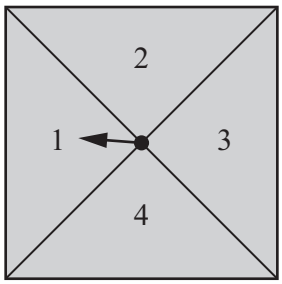
(b) The nth term of a different sequence is $4n + 3$.

Find the first 3 terms of this sequence.

..... , ... , ... [2]

6





Jasmine has 2 fair spinners.
The triangle spinner has numbers 1, 2 and 3.
The square spinner has numbers 1, 2, 3 and 4.

Jasmine spins both spinners and adds the 2 numbers to get a score.

(a) Complete the table to show all the possible scores.

		Square spinner			
		1	2	3	4
Triangle spinner	1	2			
	2	3			
	3				

[2]

(b) Work out the probability that Jasmine gets a score which is a prime number.

..... [2]

7 In a shop, each T-shirt costs \$13.50 and each pair of shorts costs \$25.75 .

(a) Find the total cost of 3 T-shirts and 2 pairs of shorts.

\$ ..... [3]

(b) The total cost of 2 T-shirts and 1 pair of jeans is \$115.

Work out the cost of 1 pair of jeans.

\$ ..... [2]

(c) In a sale, the cost of a T-shirt is reduced by 20%.

Find the cost of a T-shirt in the sale.

\$ ..... [2]

8 Solve.

(a) $\frac{x}{2} = 7$

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

(b) $3x - 1 = 11$

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

9 Work out the size of an interior angle of a regular pentagon.

..... [3]

10 By writing each number correct to 1 significant figure, work out an estimate for the value of

$$\frac{3.8 \times 11.2}{5.2 + 2.5}.$$

..... [2]

11 **(a)** Find the value of k.

$$\frac{x^9}{x^k} = x^3$$

$k =$ ..... [1]

(b) $\left(x^m\right)^n = x^{12}$

m is greater than n.

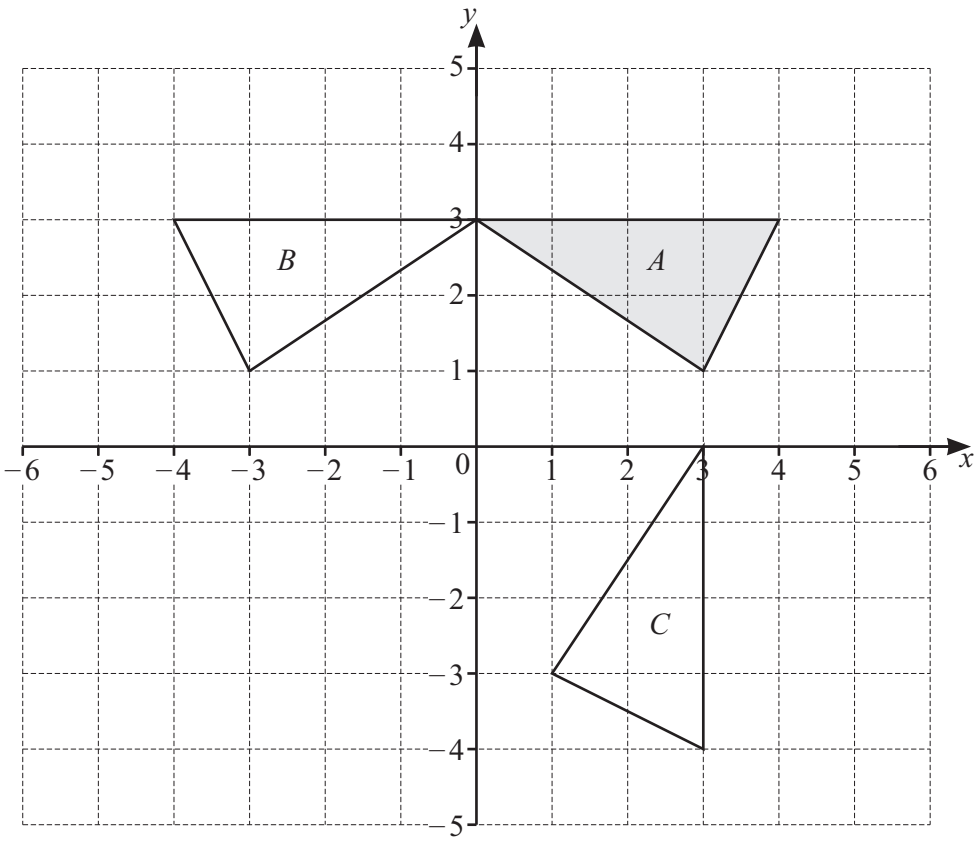
Find 2 possible pairs of values of m and n.

$m =$ ..... $n =$ .....

$m =$ ..... $n =$ .....

[2]

12



(a) Describe fully the **single** transformation which maps triangle A onto triangle B.

.....

..... [2]

(b) Describe fully the **single** transformation which maps triangle A onto triangle C.

.....

..... [3]

(c) Translate triangle A by the vector $\begin{pmatrix} -5 \\ -4 \end{pmatrix}$. [2]

13 Find the lowest common multiple (LCM) of 32 and 40.

..... [2]

14 Solve the simultaneous equations.

$$2x + y = 7$$
$$4x - y = 5$$

$x =$ .....

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

15 This is the equation of a straight line.

$$2y - 3x = 6$$

(a) Rearrange the equation into the form $y = mx + c$.

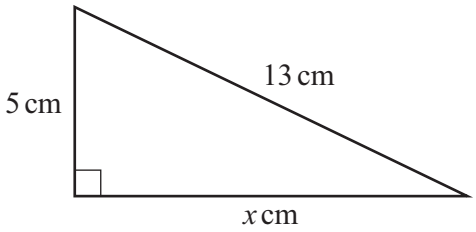
$y =$ ..... [2]

(b) Write down the gradient of the straight line.

..... [1]

Questions 16 and 17 are printed on the next page.

16

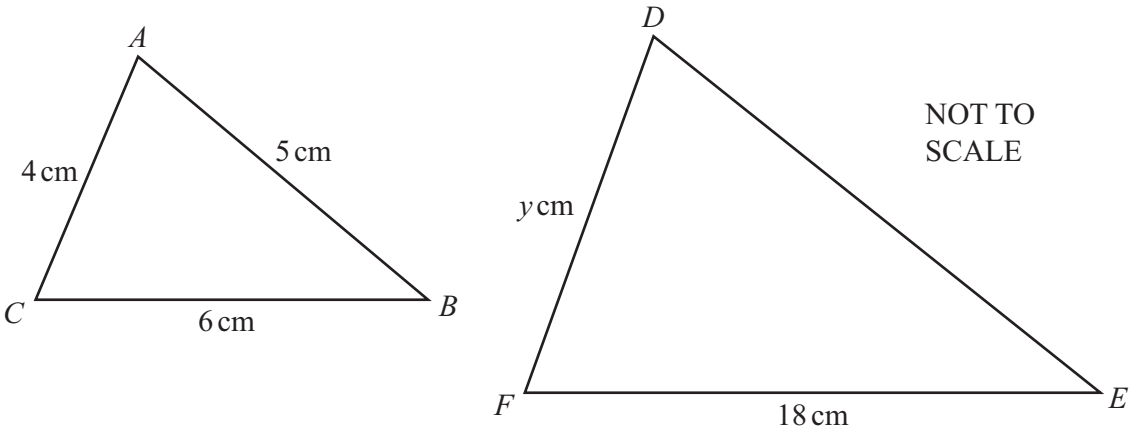


NOT TO SCALE

For this right-angled triangle, show that $x = 12$.

[3]

17



NOT TO SCALE

Triangles *ABC* and *DEF* are mathematically similar.

Find the value of y.

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