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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.

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

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 n th term of this sequence.

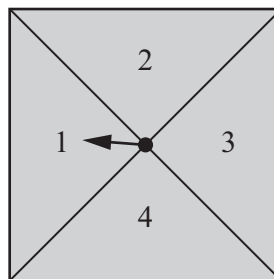
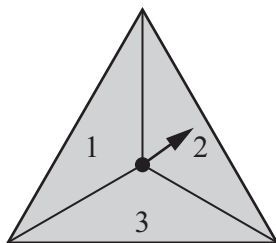
..... [2]

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

Find the first 3 terms of this sequence.

.....,, [2]





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

$x = \dots\dots\dots$ [1]

(b) $3x - 1 = 11$

$x = \dots\dots\dots$ [2]

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

$\dots\dots\dots$ [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) $(x^m)^n = x^{12}$

m is greater than n .

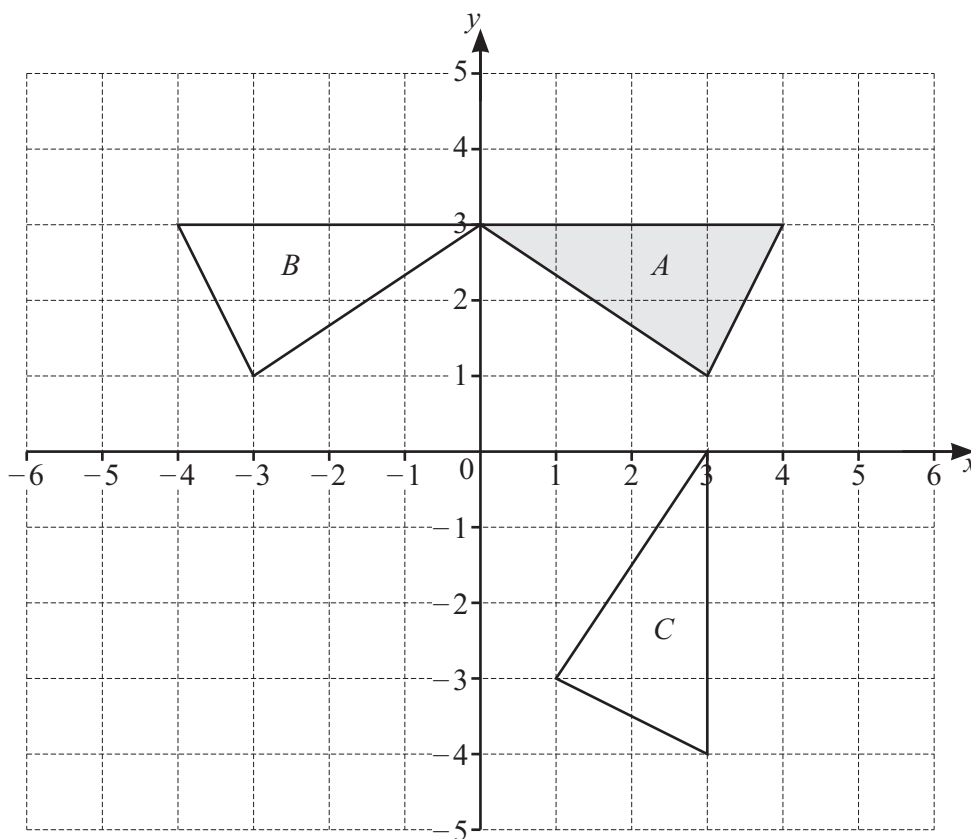
Find 2 possible pairs of values of m and n .

$m =$ $n =$

$m =$ $n =$

[2]





- (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.

$$2x + y = 7$$

$$4x - y = 5$$

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

$$y = \dots\dots\dots [2]$$

- 15 This is the equation of a straight line.

$$2y - 3x = 6$$

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

$$y = \dots\dots\dots [2]$$

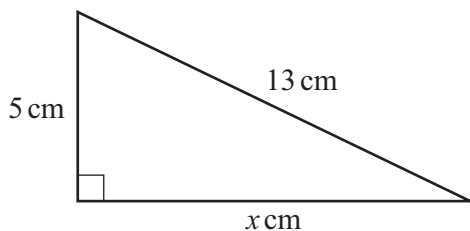
- (b) Write down the gradient of the straight line.

$$\dots\dots\dots [1]$$

Questions 16 and 17 are printed on the next page.



16

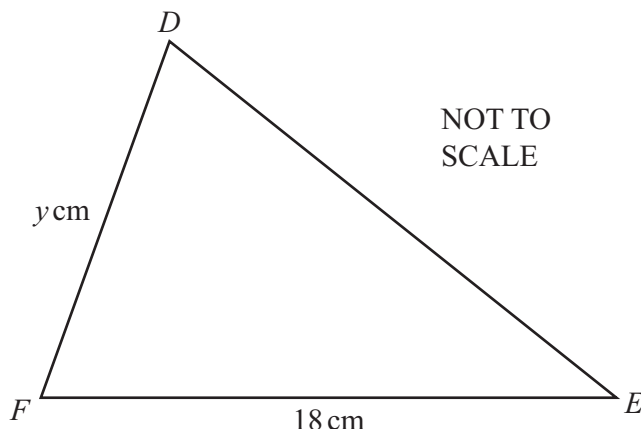
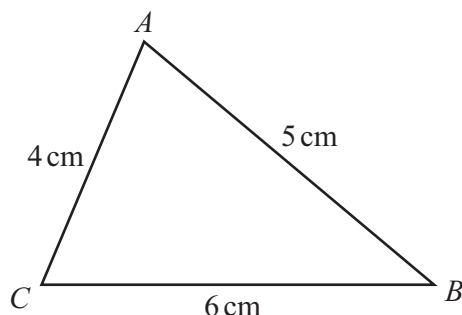


NOT TO
SCALE

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 .

$y = \dots\dots\dots$ [2]

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