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CAMBRIDGE INTERNATIONAL MATHEMATICS

0607/13

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 Work out.

(a) 25×13

..... [1]

(b) $588 \div 7$

..... [1]

(c) $\frac{1}{5} \times \frac{2}{3}$

..... [1]

(d) $\frac{2}{7} + \frac{1}{6}$

..... [2]

2 Work out.

$$2^4 + 3^2 - 4^0$$

..... [3]





3 This is a list of numbers.

0.2 0.5 2 3 6 7

From this list, write down

(a) an odd number

..... [1]

(b) the factor of 10

..... [1]

(c) the reciprocal of 2.

..... [1]

4 These are the first 4 terms of a sequence.

3 9 15 21

(a) Find the next 2 terms of the sequence.

..... , [2]

(b) Find the n th term of the sequence.

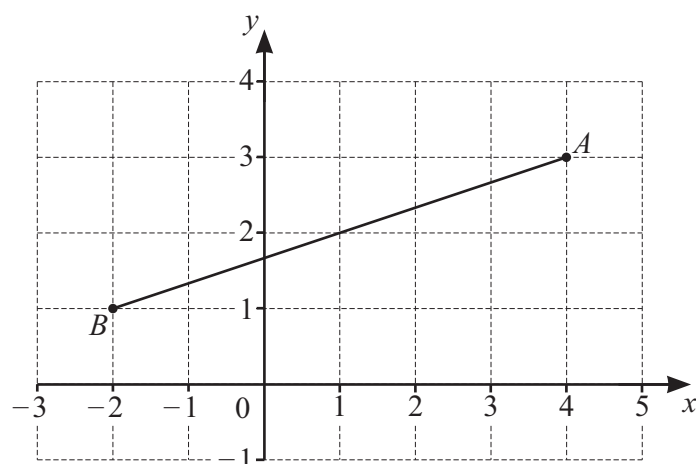
..... [2]

5 Divide 270 in the ratio 4 : 5.

..... , [2]



- 6 Points A and B are plotted on a 1 cm^2 grid.



- (a) Write down the coordinates of

(i) point A

(.....,) [1]

(ii) point B .

(.....,) [1]

- (b) Find the coordinates of the midpoint of AB .

(.....,) [1]

- (c) The length of $AB = \sqrt{k}$ centimetres.

Find the value of k .

$k = \dots\dots\dots$ [2]



7 Simplify.

(a) $3a - 2a + a$

..... [1]

(b) $\frac{5x^2}{7x}$

..... [1]

8 This is a list of 6 numbers written from smallest to largest.
The numbers are all different.

3 5 x 8 12 y

The median of these numbers is 7.
The mean of these numbers is 8.

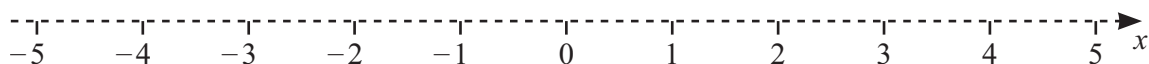
Work out the value of x and the value of y .

$x =$

$y =$

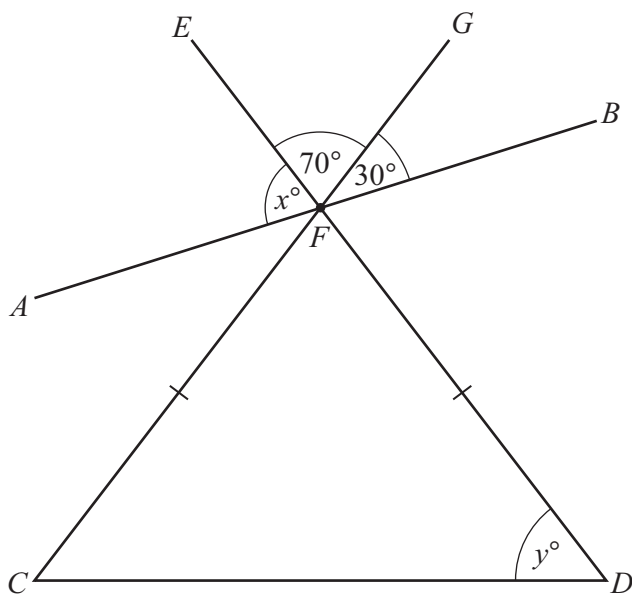
[3]

9 Show the inequality $-3 < x \leq 2$ on the number line.



[2]





NOT TO
SCALE

The diagram shows 4 straight lines.
3 of the lines cross at point F .
 $FC = FD$.
Angle $GFB = 30^\circ$ and angle $EFG = 70^\circ$.

Find the value of x and the value of y .

$x = \dots\dots\dots$

$y = \dots\dots\dots$

[3]

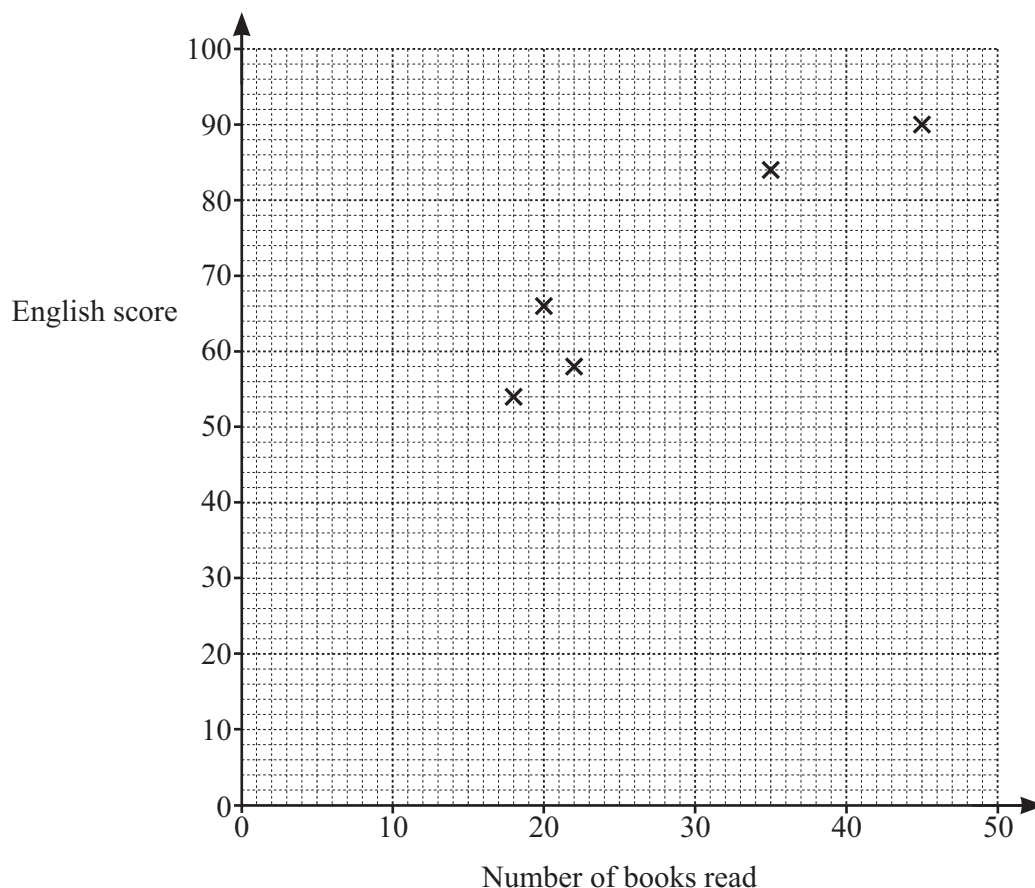


- 11 The table shows the number of books read and the English score for each of 8 students.

Number of books read	22	20	18	45	35	12	48	24
English score	58	66	54	90	84	46	92	70

- (a) Complete the scatter diagram.
The first 5 points have been plotted for you.

[2]



- (b) Write down the type of correlation shown on the scatter diagram.

..... [1]

- (c) The mean number of books read is 28.
The mean English score is 70.

On the diagram, draw a line of best fit.

[2]



12 $U = \{\text{integers from 1 to 12 inclusive}\}$

$$E = \{2, 4, 6, 8, 10, 12\}$$

$$T = \{\text{factors of 12}\}$$

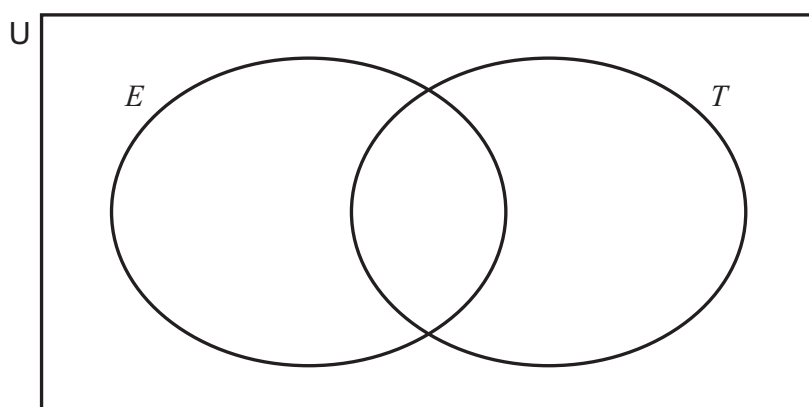
(a) Write down $n(E)$.

..... [1]

(b) Write down the elements in set T .

..... [2]

(c) Complete the Venn diagram by writing each element in the correct region.



[2]

(d) Write down the elements in $E \cap T$.

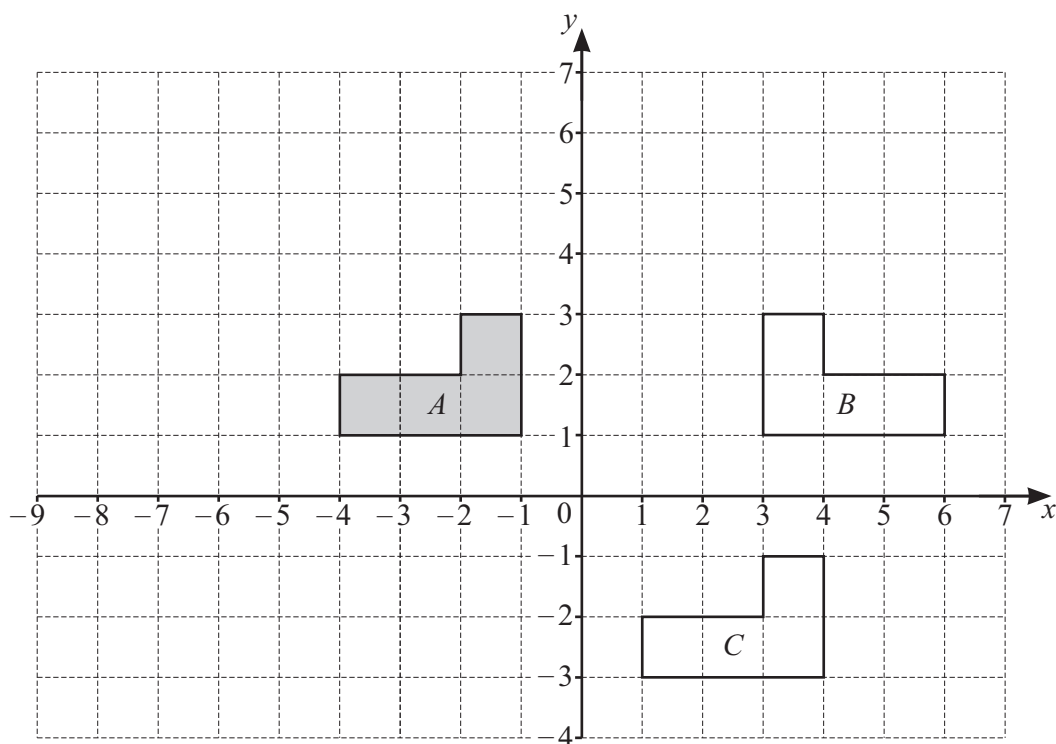
..... [1]

13 The circumference of a circle with radius r cm is 16π cm.

Work out the value of r .

$r =$ [2]





- (a) Describe fully the **single** transformation that maps shape A onto shape B .

.....
 [2]

- (b) Describe fully the **single** transformation that maps shape A onto shape C .

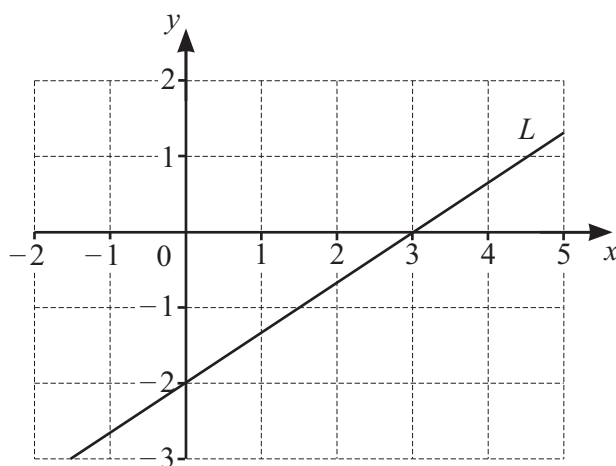
.....
 [2]

- (c) Enlarge shape A by scale factor 2, centre $(0, 0)$.

[2]



15 The diagram shows line L .



Find the equation of line L .

Give your answer in the form $y = mx + c$.

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

16 $f(x) = 2x + 3$ $g(x) = 5 - 3x$

(a) Find the value of $f(4) + g(3)$.

$\dots\dots\dots$ [2]

(b) Find the value of x when $f(x) + g(x) = 0$.

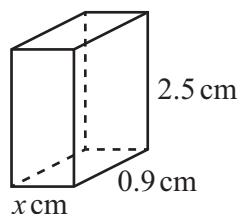
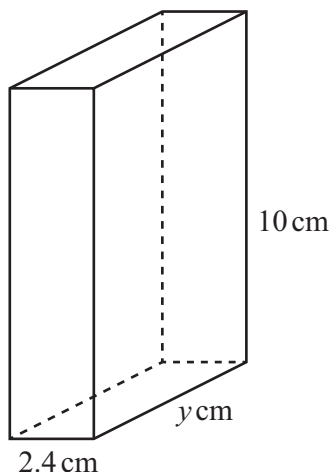
$x = \dots\dots\dots$ [2]

Question 17 is printed on the next page.





17 The diagram shows 2 cuboids.



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The cuboids are mathematically similar.

Find the value of x and the value of y .

$x =$

$y =$

[3]

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