Cambridge Assessment International Education

Cambridge IGCSE™

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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.

DC (CE/SW) 349940/5

[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 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]

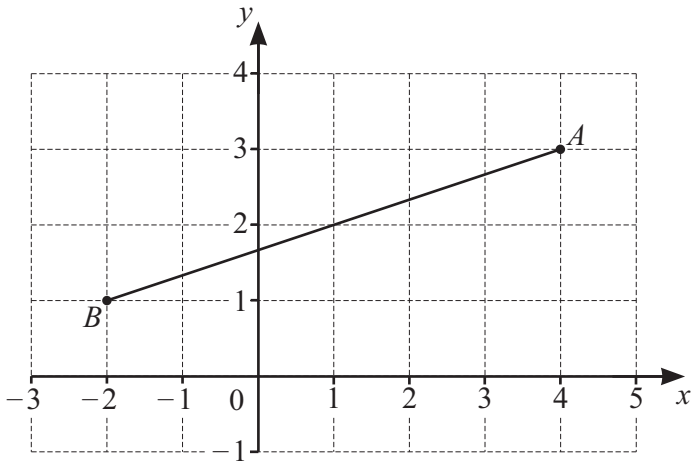
(b) Find the *n*th term of the sequence.

..... [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.

$k =$ ..... [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.

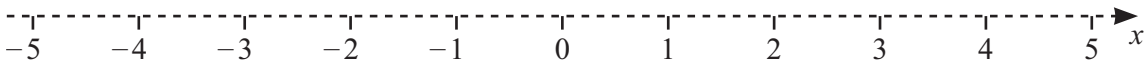
Work out the value of x and the value of y.

$x =$ .....

$y =$ .....

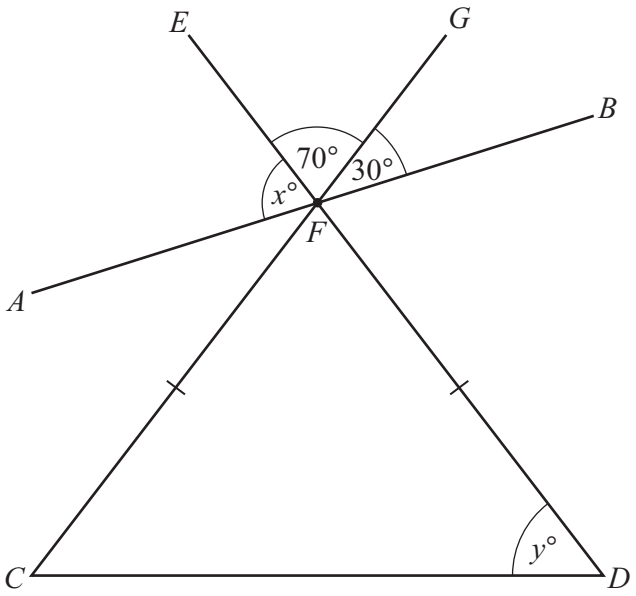
[3]

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



[2]

10



NOT TO SCALE

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

Find the value of x and the value of y.

$x =$ .....

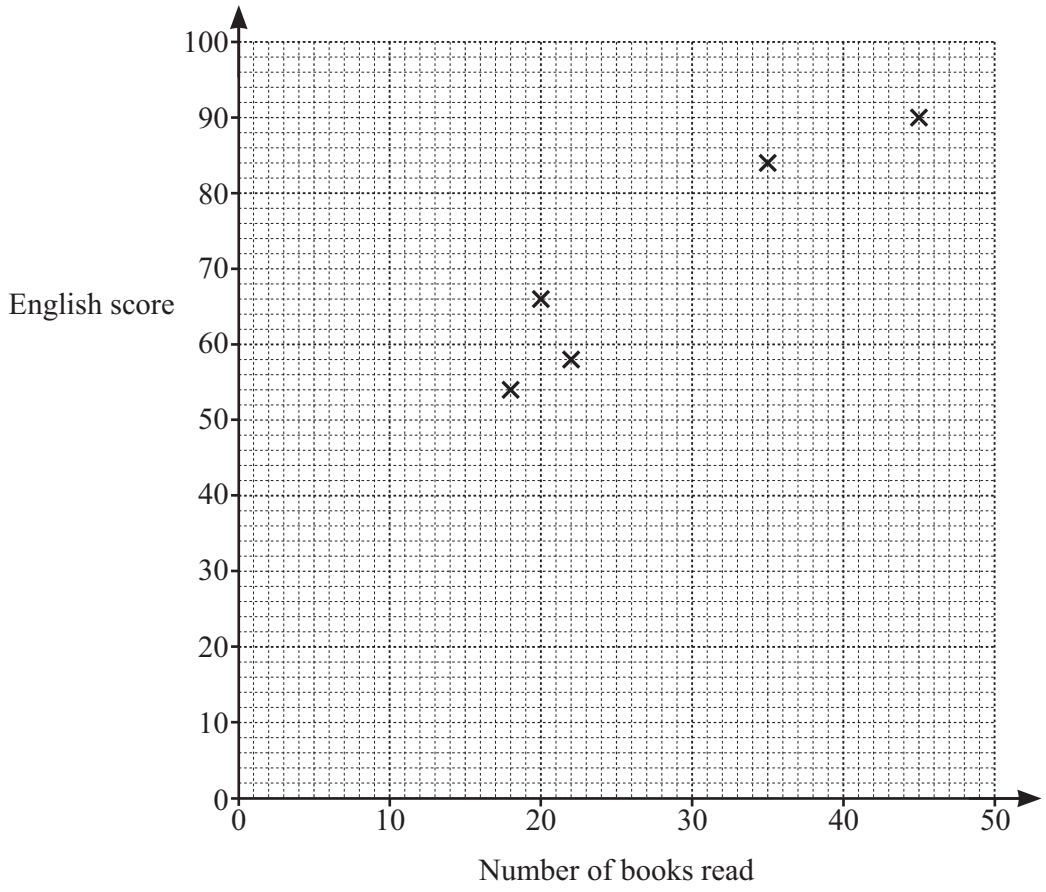
$y =$ .....

[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 = {integers from 1 to 12 inclusive}

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

T = {factors of 12}

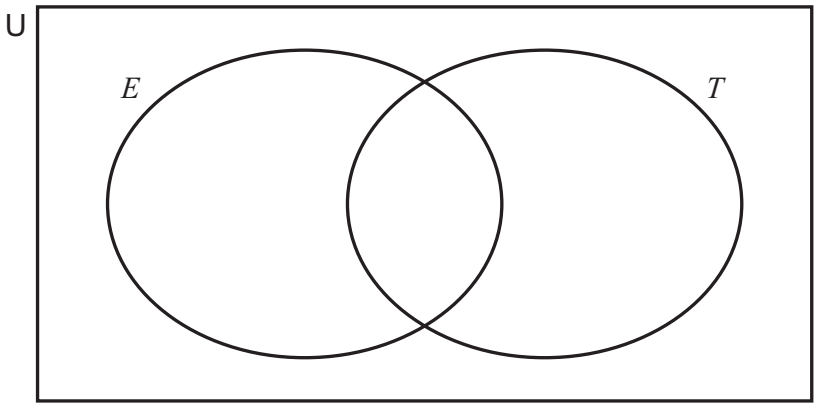
(a) Write down n(E).

..... [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 $E \cap T$.

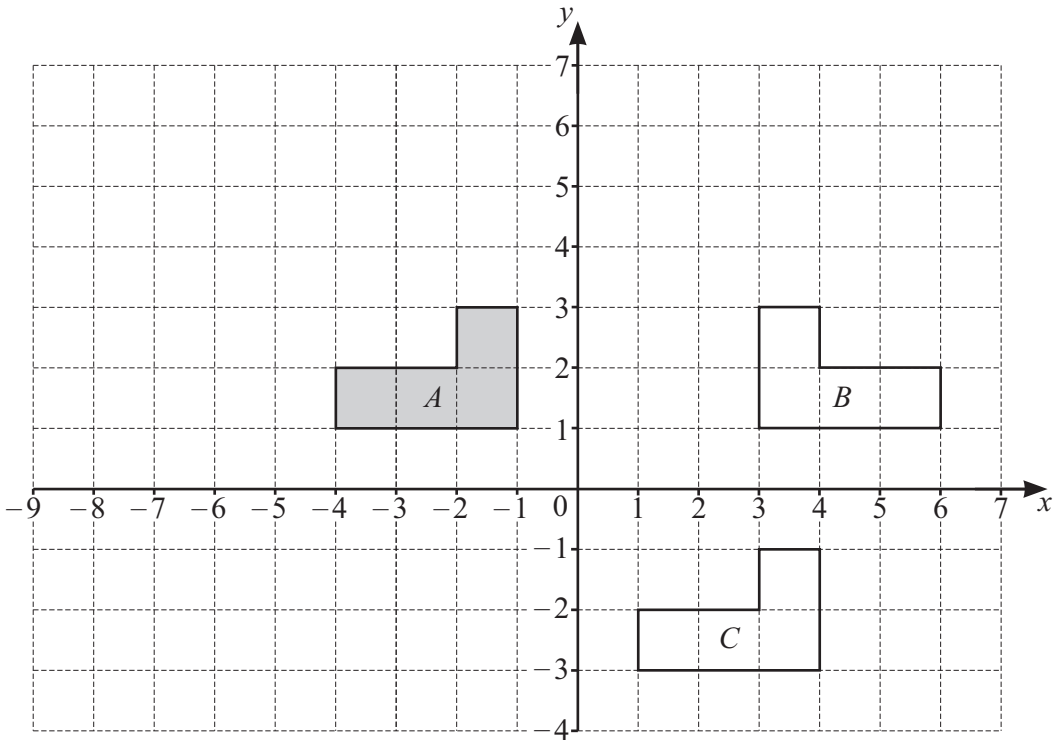
..... [1]

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

Work out the value of r.

$r =$ ..... [2]

14



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

.....

..... [2]

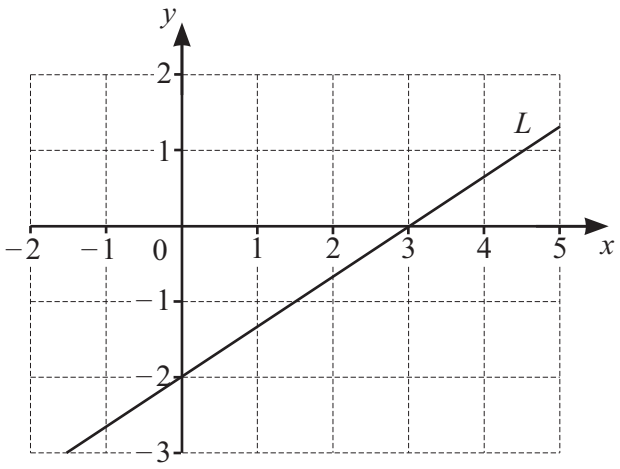
(b) Describe fully the **single** transformation that maps shape *A* onto shape *C*.

.....

..... [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 $y = mx + c$.

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

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

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

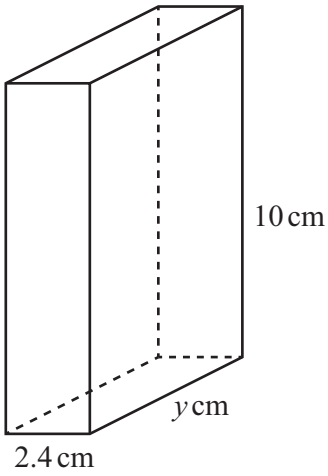
..... [2]

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

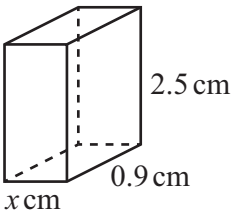
$x =$ ..... [2]

Question 17 is printed on the next page.

17 The diagram shows 2 cuboids.



NOT TO SCALE



The cuboids are mathematically similar.

Find the value of x and the value of y.

$x =$ .....

$y =$ .....

[3]