



Cambridge IGCSE™

CANDIDATE
NAME

CENTRE
NUMBER

--	--	--	--	--

CANDIDATE
NUMBER

--	--	--	--

MATHEMATICS

0580/11

Paper 1 Non-calculator (Core)

May/June 2026

1 hour 30 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. Do **not** use correction fluid or tape.
- 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.

INFORMATION

- The total mark for this paper is 80.
- The number of marks for each question or part question is shown in brackets [].

This document has **16** 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

1.694	$\sqrt{18}$	6	6.666	7	$\sqrt{225}$	25	27	39	56	1000
-------	-------------	---	-------	---	--------------	----	----	----	----	------

From the list of numbers, write down

- (a) an even number
..... [1]
- (b) a factor of 28
..... [1]
- (c) a square number
..... [1]
- (d) a prime number
..... [1]
- (e) an irrational number.
..... [1]

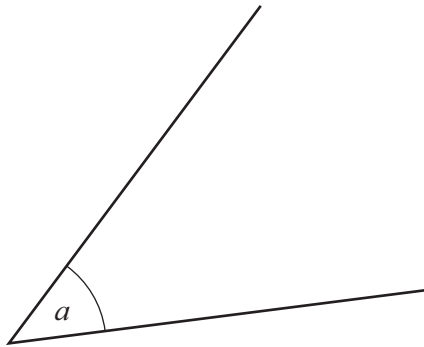
- 2 (a) Bella is b years old.
Alan is 5 years older than Bella.

Write an expression, in terms of b , for how old Alan is.

..... [1]
- (b) Write an expression for the total cost, in cents, of x bags of sweets costing 65 cents each.

..... cents [1]

3



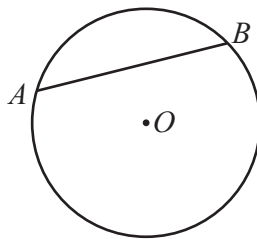
(a) Measure angle a .

..... [1]

(b) Write down the mathematical name for this type of angle.

..... [1]

4 (a) Points A and B lie on a circle, centre O , as shown in the diagram.



Write down the mathematical name for line AB .

..... [1]

(b) A quadrilateral has

- four equal sides
- no right angles
- opposite angles that are equal.

Write down the mathematical name for this quadrilateral.

..... [1]





5 (a) Write $\frac{1}{2}$ as a decimal.

..... [1]

(b) Write $\frac{9}{10}$ as a percentage.

.....% [1]

(c) Write 0.15 as a fraction in its simplest form.

..... [1]

6 Triangle ABC has sides $AC = 7.4\text{ cm}$ and $BC = 4.6\text{ cm}$.

Using a ruler and compasses only, construct triangle ABC .
Leave in your construction arcs.
The side AB has been drawn for you.



[2]



- 7 (a) Two fair 4-sided dice have faces numbered 1 to 4.
The dice are thrown, and the numbers are multiplied to give a total.
The table shows all the possible results.

		dice B			
		1	2	3	4
dice A	1	1	2	3	4
	2	2	4	6	8
	3	3	6	9	12
	4	4	8	12	16

Find the probability the total is

- (i) 12

..... [1]

- (ii) 5

..... [1]

- (iii) a number that is less than 20.

..... [1]

- (b) A biased 6-sided dice, numbered 1 to 6, is thrown.
The probability of scoring the number 6 is 0.2 .

Work out the probability of scoring a number less than 6.

..... [1]

- 8 In a town, the lowest temperature one night is -12.6°C .
The highest temperature the next day is 25.7°C .

Calculate the difference between these two temperatures.

..... $^{\circ}\text{C}$ [1]



9 When Ahmed gets out of bed he takes

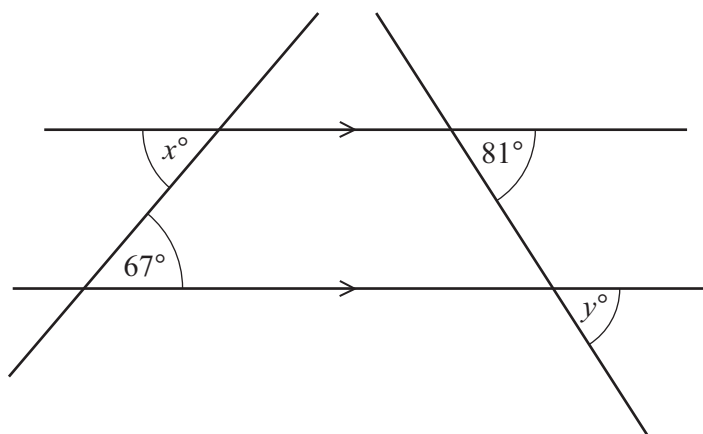
- 12 minutes to get dressed
- 26 minutes to eat breakfast
- 37 minutes to walk to the station.

Ahmed must be at the station by 09 45.

Work out the **latest** time Ahmed can get out of bed.

..... [2]

10 The diagram shows two straight lines intersecting two parallel lines.



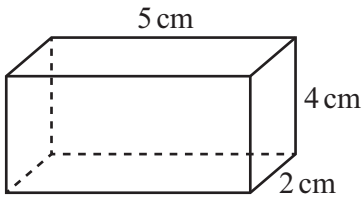
NOT TO SCALE

Complete each of these statements with the correct geometrical reason.

$x = 67$ because

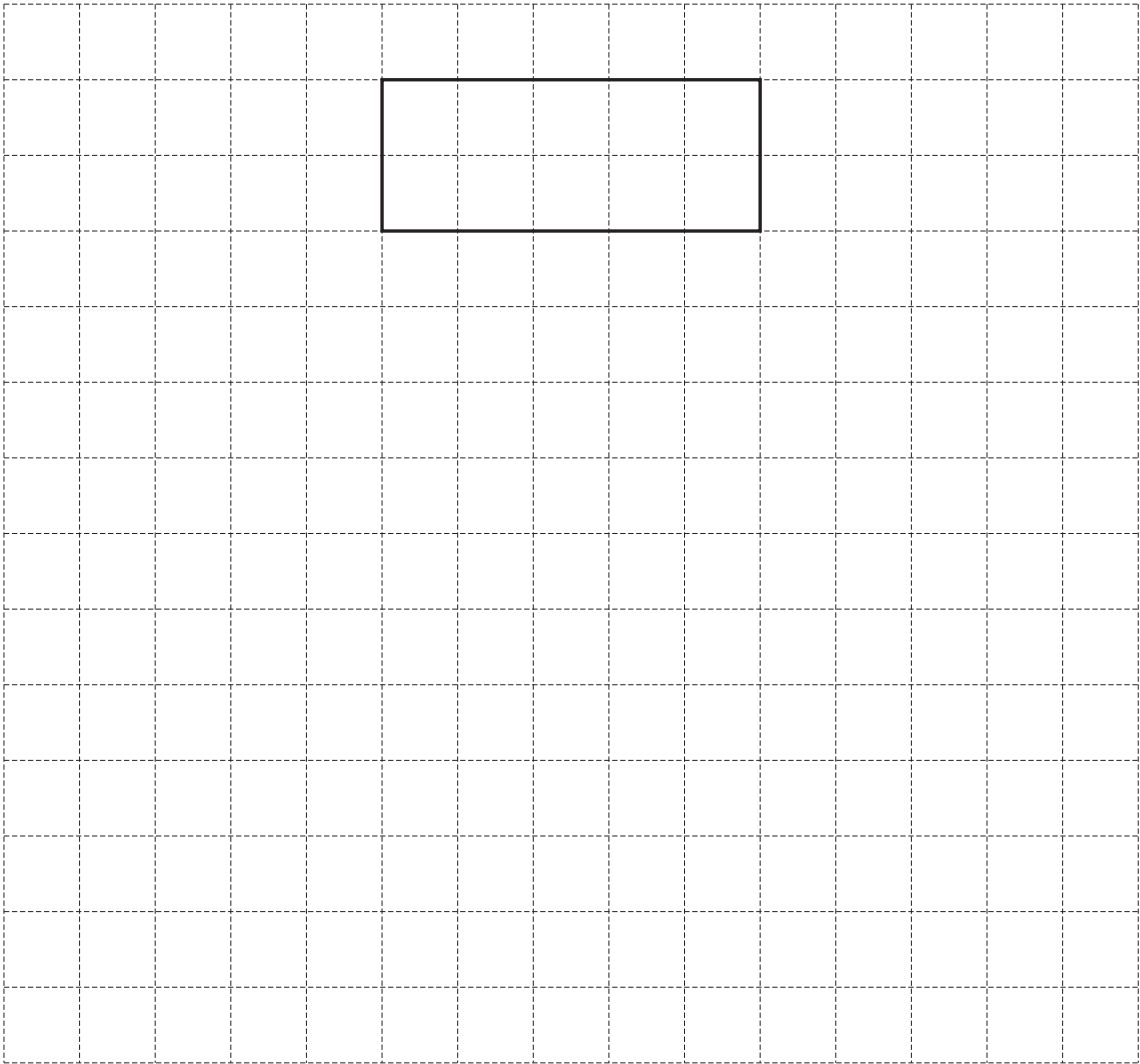
$y = 81$ because

[2]



NOT TO SCALE

On the 1cm^2 grid, complete a net of this cuboid.
One face has been drawn for you.



[3]



12 The stem-and-leaf diagram shows the lengths, in centimetres, of 32 wooden planks.

23	3	4	4	5	6	6	8	9			
24	0	0	1	1	1	1	3	6	8	8	9
25	2	3	5	6	7	9	9	9			
26	0	0	1	2	4						

key : 23 | 3 represents 233 cm

(a) Find the range.

..... cm [1]

(b) Find the mode.

..... cm [1]

(c) Find the median.

..... cm [1]

(d) Find the fraction of all these planks which are less than 236 cm.
Write your answer as a fraction in its simplest form.

..... [2]

- 13 By writing each number in the calculation correct to 1 significant figure, work out an estimate for the value of

$$\frac{9.57 \times 3.84}{6.72 + 1.13}.$$

..... [2]

- 14 A bag contains 45 balls.
The balls are red or green.
The balls are in the ratio red balls : green balls = 2 : 3.

Carlos puts 4 more red balls and x more green balls into the bag.
The balls are now in the ratio red balls : green balls = 1 : 2.

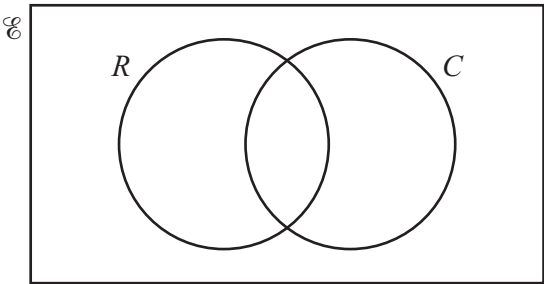
Find the value of x .

$x =$ [4]



15 (a) 60 people complete a survey about hobbies.

- 41 people like reading books (R).
- 31 people like cookery (C).
- 11 do not like reading books and do not like cookery.



(i) Complete the Venn diagram.

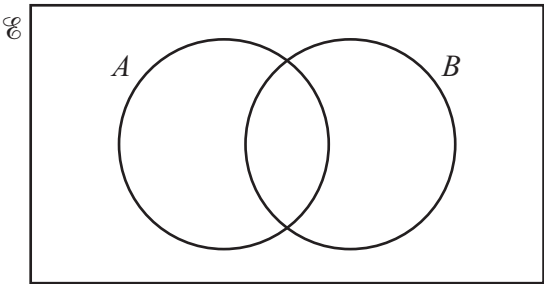
[2]

(ii) One of these 60 people is picked at random.

Find the probability that they like cookery but they do not like reading books.

..... [1]

(b)



Shade $A \cap B$.

[1]

- 16 Buses at a station go to Alve or to Riba.
Buses leave every 16 minutes for Alve.
Buses leave every 28 minutes for Riba.
At 08 25 a bus for Alve and a bus for Riba leave the station together.

Find the next time a bus for Alve and a bus for Riba leave the station together.

..... [3]

- 17 Work out.

$$2\frac{1}{6} - 1\frac{3}{5}$$

Write your answer as a fraction in its simplest form.

..... [3]

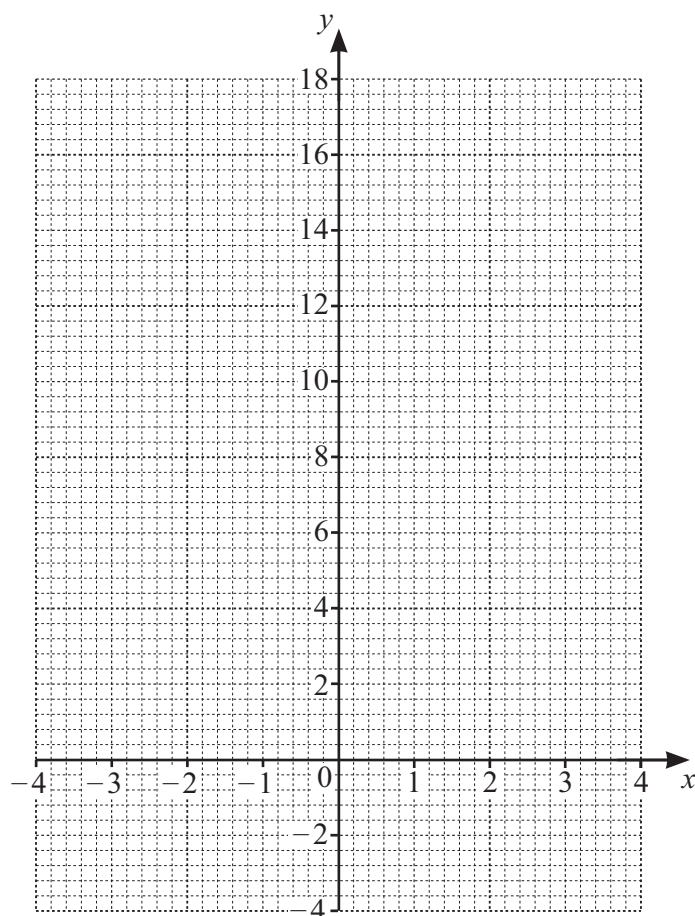


18 (a) Complete the table of values for $y = x^2 + x - 3$.

x	-4	-3	-2	-1	0	1	2	3	4
y	9		-1	-3	-3	-1		9	

[2]

(b) On the grid, draw the graph of $y = x^2 + x - 3$ for $-4 \leq x \leq 4$.



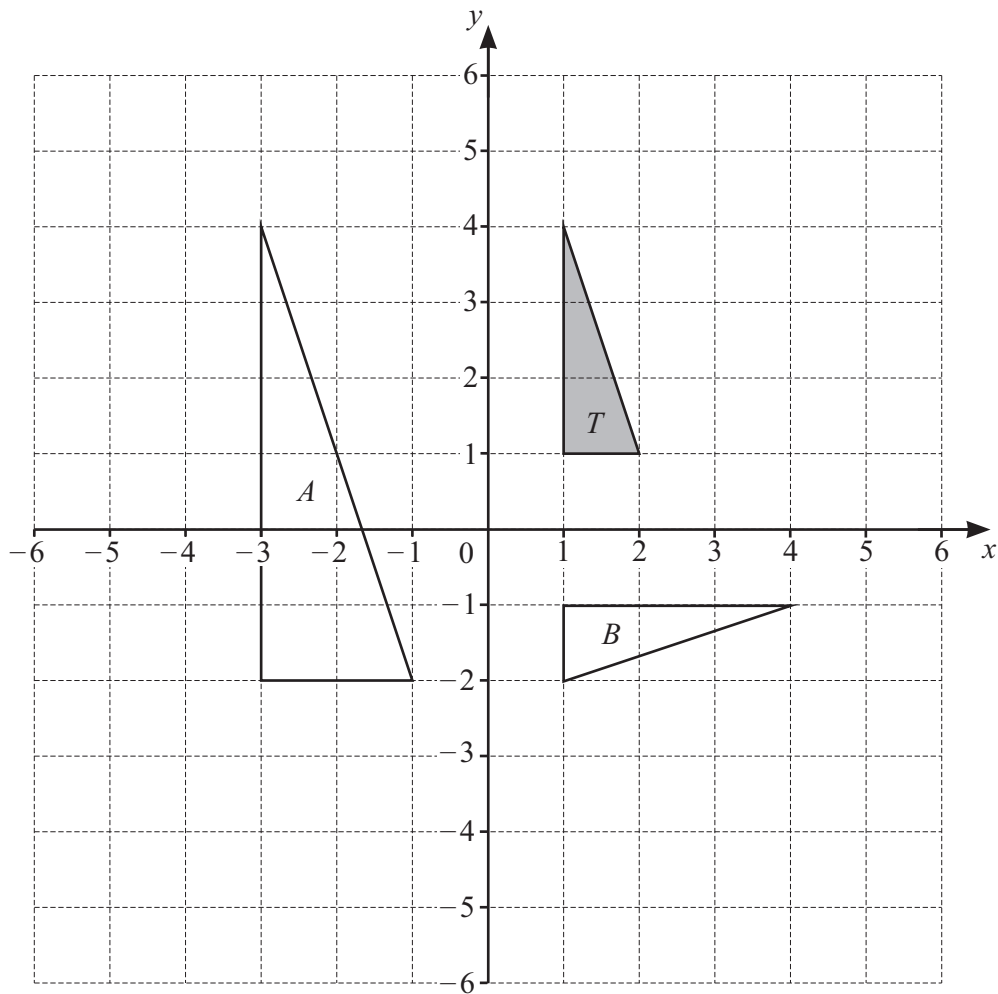
[4]

(c) Write down the equation of the line of symmetry of the graph.

..... [1]

(d) Use your graph to solve the equation $x^2 + x - 3 = 0$.

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



(a) On the grid, draw the image of triangle T after a translation by the vector $\begin{pmatrix} 3 \\ -6 \end{pmatrix}$. [2]

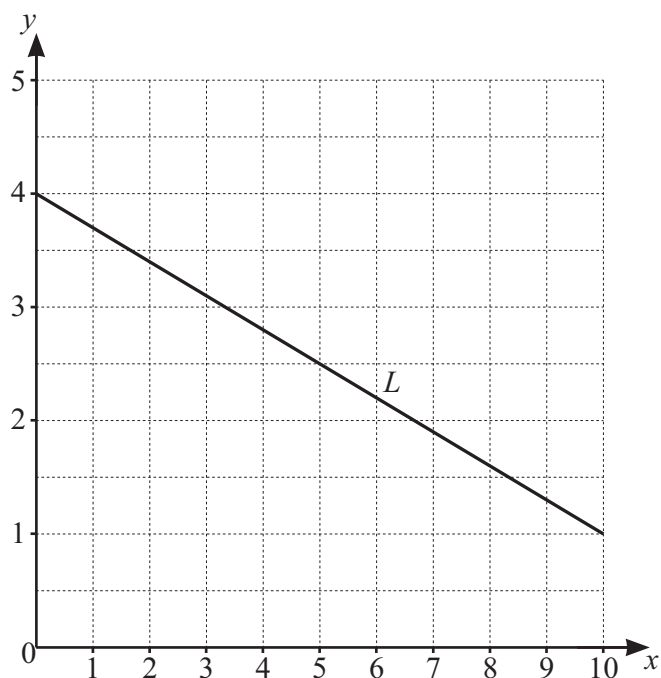
(b) On the grid, draw the image of triangle T after a reflection in the line $y = -1$. [2]

(c) Describe fully the **single** transformation that maps triangle T onto triangle A .
 [3]

(d) Describe fully the **single** transformation that maps triangle T onto triangle B .
 [3]



20 The diagram shows line L on a grid.



Find the equation of line L in the form $y = mx + c$.

$y = \dots\dots\dots$ [3]

21 (a) Make T the subject of the formula.

$$P = Ty$$

$T = \dots\dots\dots$ [1]

(b) Expand the brackets and simplify.

$$(x + 8)(x - 5)$$

$\dots\dots\dots$ [2]

- 22 The time, t seconds, for the winner of a race is 12.7 seconds, correct to 3 significant figures.

Complete this statement about the value of t .

..... $\leq t <$ [2]

- 23 Solve the simultaneous equations.

$$\begin{aligned} 3x + 4y &= 1 \\ 2x - 3y &= 12 \end{aligned}$$

$x =$

$y =$ [4]

Permission to reproduce items where third-party owned material protected by copyright is included has been sought and cleared where possible. Every reasonable effort has been made by the publisher (Cambridge University Press & Assessment) to trace copyright holders, but if any items requiring clearance have unwittingly been included, the publisher will be pleased to make amends at the earliest possible opportunity.

To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced online in our Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download at www.cambridgeinternational.org after the live examination series.

Cambridge International Education is the name of our awarding body and a part of Cambridge University Press & Assessment, which is a department of the University of Cambridge.

