



Cambridge IGCSE™

CANDIDATE
NAMECENTRE
NUMBER

--	--	--	--	--

CANDIDATE
NUMBER

--	--	--	--

CAMBRIDGE INTERNATIONAL MATHEMATICS

0607/42

Paper 4 Calculator (Extended)

February/March 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.
- You should use a graphic display calculator where appropriate.
- You may use tracing paper.
- You must show all necessary working clearly. You will be given marks for correct methods, including sketches, even if your answer is incorrect.
- Give non-exact numerical answers correct to 3 significant figures, or 1 decimal place for angles in degrees, unless a different level of accuracy is specified in the question.
- For π , use either your calculator value or 3.142.

INFORMATION

- The total mark for this paper is 75.
- The number of marks for each question or part question is shown in brackets [].

This document has **16** pages. Any blank pages are indicated.

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 .

$$V = \frac{1}{3}\pi r^2 h$$

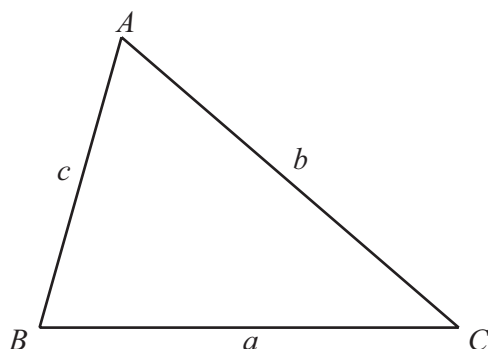
Volume, V , of sphere of radius r .

$$V = \frac{4}{3}\pi r^3$$

For the equation $ax^2 + bx + c = 0$, where $a \neq 0$,

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

For the triangle shown,



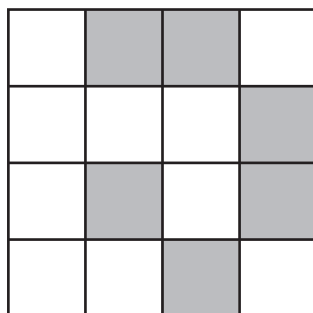
$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

$$a^2 = b^2 + c^2 - 2bc \cos A$$

$$\text{Area} = \frac{1}{2}ab \sin C$$

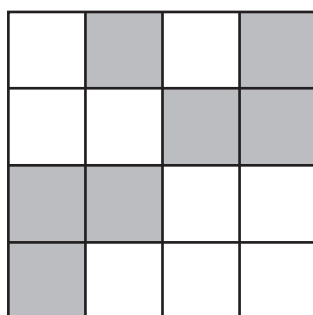


- 1 (a) Shade 1 small square so that the diagram has 1 line of symmetry.



[1]

- (b) Shade 1 small square so that the diagram has rotational symmetry of order 2.



[1]

- 2 Simplify.

$$7a + 3b - 5a - 6b$$

..... [2]

- 3 $A = 3b - 2c$

Find b when $A = 5.4$ and $c = 1.2$.

$b =$ [2]





- 4 These are the ingredients for making 20 ginger biscuits.

ingredient	amount (g)
butter	100
sugar	75
ginger	35
syrup	100
flour	250

- (a) Laila makes 48 biscuits.

Work out the amount of sugar Laila needs.

..... g [2]

- (b) Girish has 100 g of ginger and large amounts of the other ingredients.

Work out the greatest number of biscuits Girish can make.

..... [2]





5 (a) The n th term of a sequence is $n^2 + n$.

Find the first 3 terms of the sequence.

.....,, [2]

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

14 11 8 5 2

(i) Find the next term.

..... [1]

(ii) Find the n th term.

..... [2]



6 A car travels 120 km at an average speed of 75 km/h.

- (a) Work out the time taken for the journey.
Give your answer in hours and minutes.

..... h min [3]

- (b) The car then travels a further 120 km at an average speed of 50 km/h.

Calculate the average speed for the complete journey.

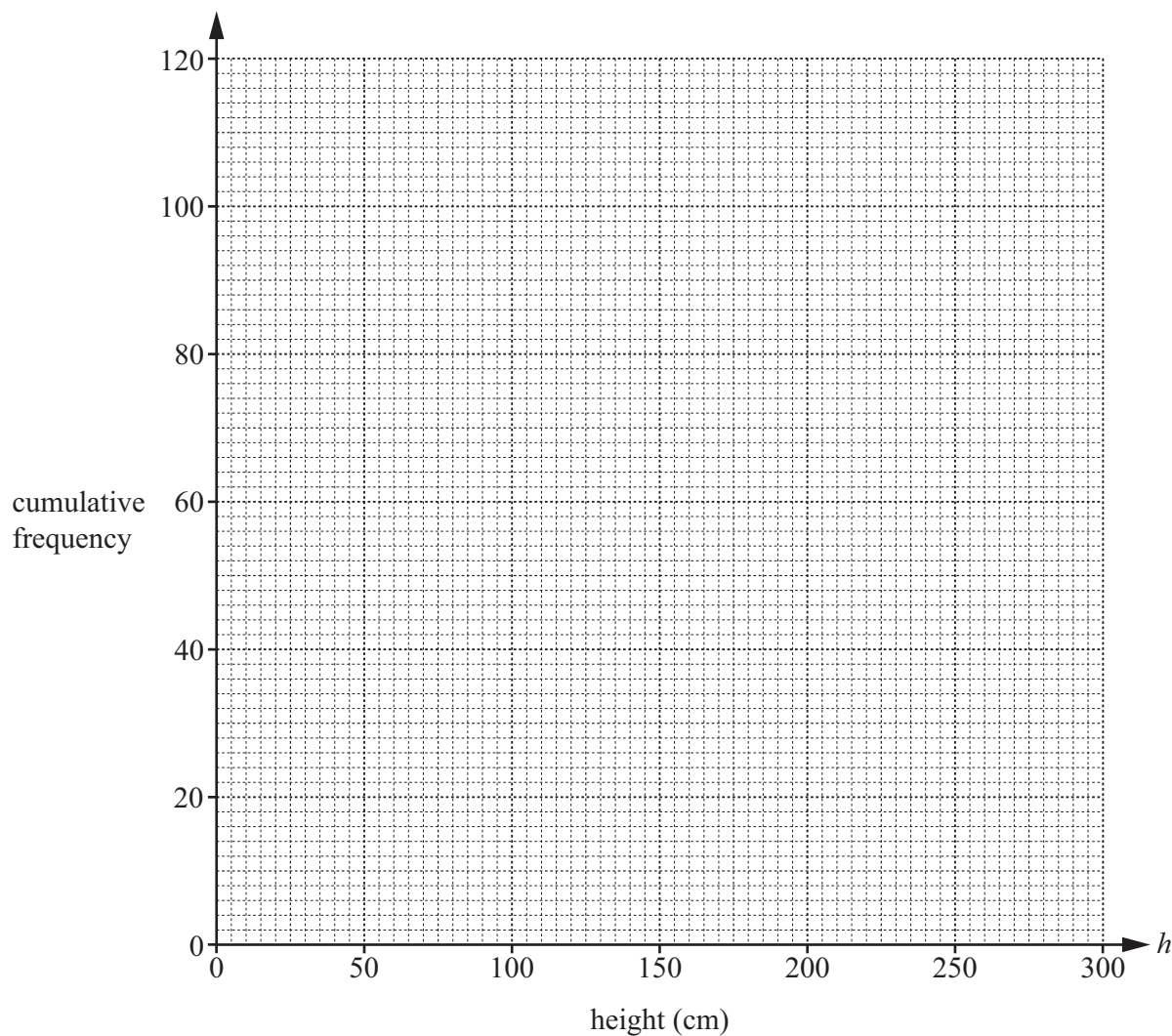
..... km/h [3]



7 The table shows some information about the heights of 120 trees.

height, h cm	$h \leq 50$	$h \leq 100$	$h \leq 150$	$h \leq 200$	$h \leq 250$	$h \leq 300$
cumulative frequency	6	16	44	82	108	120

(a) Draw a cumulative frequency diagram to show this information.



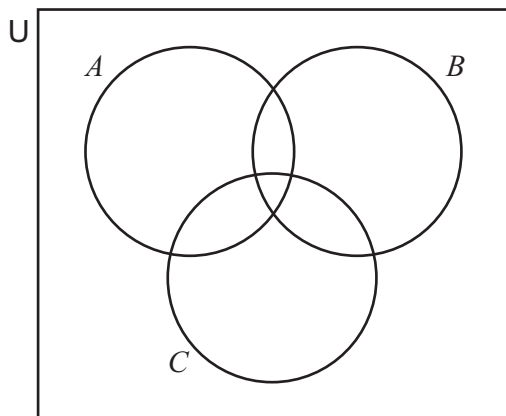
[2]

(b) Use the diagram to estimate the number of trees with a height of over 230 cm.

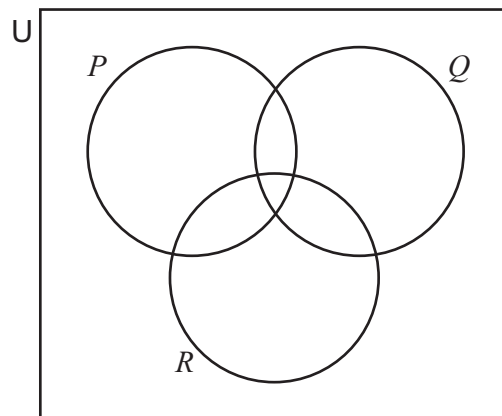
..... [2]



8 On each Venn diagram, shade the given region.



$$A \cap B \cap C'$$



$$(P \cup R)' \cap Q$$

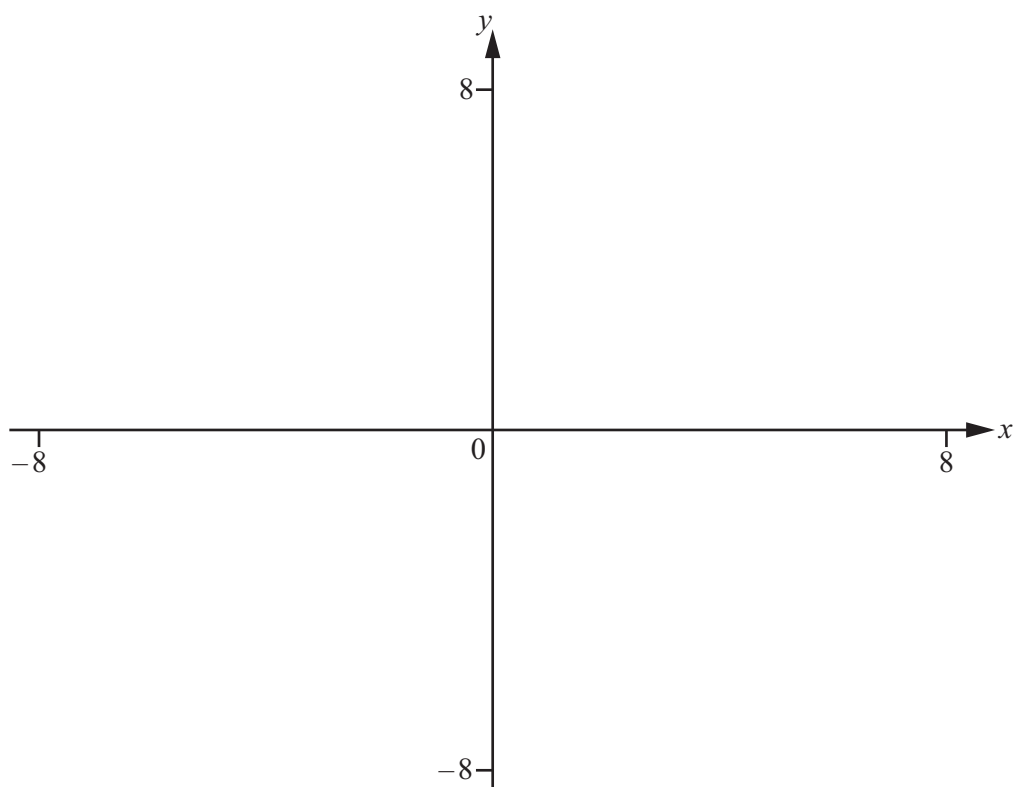
[2]

- 9 In a sale, all prices are reduced by 35%.
The sale price of a dress is \$31.07 .

Calculate the original price of the dress.

\$ [2]





$$f(x) = \frac{2x}{x^2 + x - 12}$$

(a) Sketch the graph of $y = f(x)$ for values of x between -8 and 8 . [3]

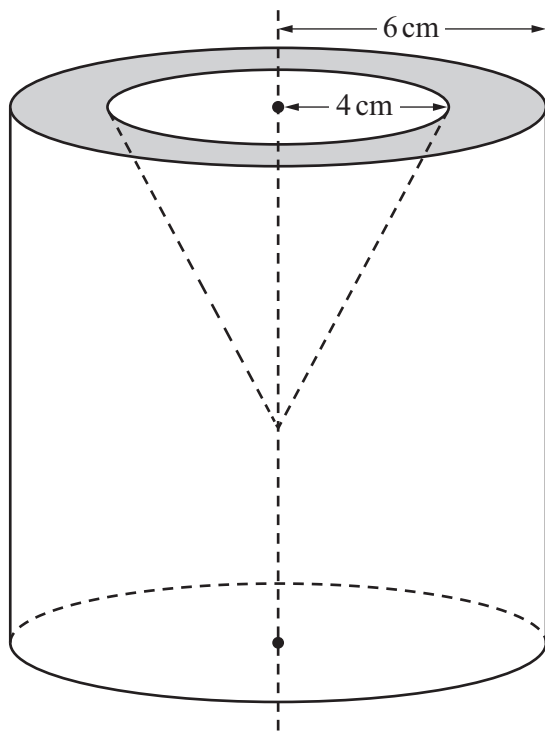
(b) Write down the equations of the 3 asymptotes to the graph.

.....,, [3]

(c) Solve the inequality $f(x) > 3$.

..... [3]

- 11 The diagram shows a solid formed from a cylinder with a cone removed.



NOT TO SCALE

The cylinder has a radius of 6 cm and a height of 15 cm.
The cone has a radius of 4 cm and a height of 8 cm.

Calculate the total surface area of the solid.

..... cm^2 [6]



12 A is the point $(-5, 8)$ and B is the point $(1, -1)$.

(a) Calculate the length of AB .

$AB = \dots\dots\dots$ [3]

(b) The line AC is perpendicular to AB .

Find the equation of the line AC .

$\dots\dots\dots$ [4]

13 Solve the simultaneous equations.
You must show all your working.

$$\frac{1}{2}x + \frac{1}{3}y = 5$$

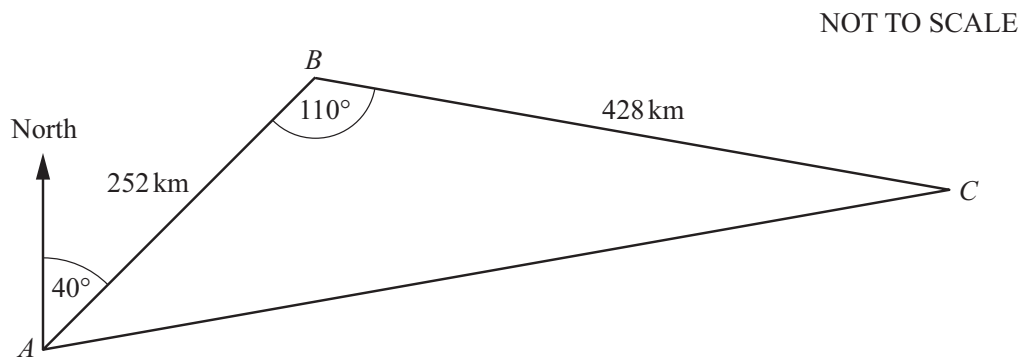
$$3x - 2y = 12$$

$x = \dots\dots\dots$

$y = \dots\dots\dots$

[3]

- 14 The diagram shows the positions of A , B and C .



$AB = 252$ km and $BC = 428$ km.
 Angle $ABC = 110^\circ$.
 The bearing of B from A is 040° .

- (a) Calculate AC .

$AC = \dots\dots\dots$ km [3]

- (b) Find the bearing of C from A .

$\dots\dots\dots$ [4]



15 Alisha has these 10 letter cards.



- (a) Alisha selects 2 of these cards at random without replacement.

Find the probability that at least 1 card has an **S** on it.

..... [3]

- (b) The 2 cards are replaced.

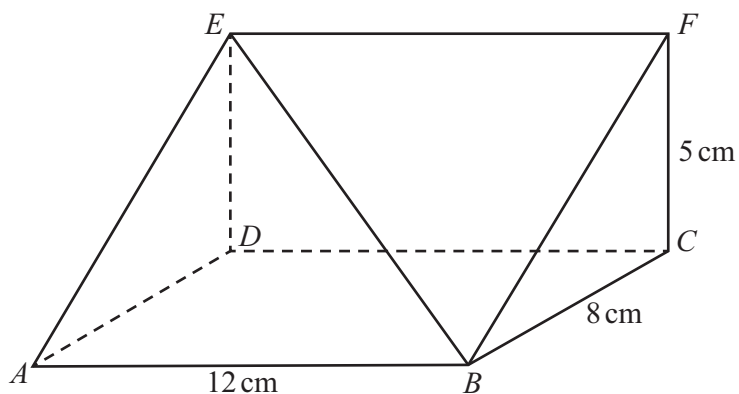
Alisha now selects 3 cards from the set of 10, at random without replacement.

Find the probability that the cards can be arranged to spell the word **SON**.

..... [3]



16 The diagram shows a triangular prism.



NOT TO SCALE

$ABCD$ is a horizontal plane.

Angle BCF is a right angle.

(a) Calculate the length BE .

$BE = \dots\dots\dots$ cm [3]

(b) Calculate the angle between BE and the horizontal plane.

$\dots\dots\dots$ [2]





17 Expand and simplify.

$$(2x + 3)(x - 1)(x + 5)$$

..... [3]





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.

