Cambridge Assessment International Education

Cambridge IGCSE™

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CAMBRIDGE INTERNATIONAL MATHEMATICS **0607/32**

Paper 3 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.
- 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 60.
- The number of marks for each question or part question is shown in brackets [ ].

This document has **12** pages.

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

1 **(a)** Work out how many days there are in 6 weeks.

..... days [1]

(b) Write 14 25 as a 12-hour clock time.

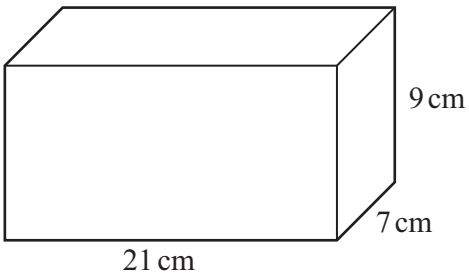
..... [1]

(c) A TV programme starts at 15 25 and finishes at 16 09.

Work out how many minutes the programme lasts.

..... minutes [1]

2



NOT TO SCALE

This solid cuboid has dimensions 21 cm, 7 cm and 9 cm.

(a) Write down the number of faces, edges and vertices of the cuboid.

Faces .....

Edges .....

Vertices .....

[2]

(b) Work out the volume of the cuboid.
Give the units of your answer.

.... [2]

3 **(a)** Write down an even number between 1 and 10.

..... [1]

(b) Write down a square number between 1 and 10.

..... [1]

(c) Write down all the factors of 20.

..... [2]

4 Find the value of $\sqrt{8.2 \times 7.6}$.
Give your answer correct to 3 decimal places.

..... [2]

5 The exchange rate between dollars ($) and pounds (£) is $1 = £0.82$.

(a) Divya changes $140 into pounds.

Work out how much money, in pounds, she receives.

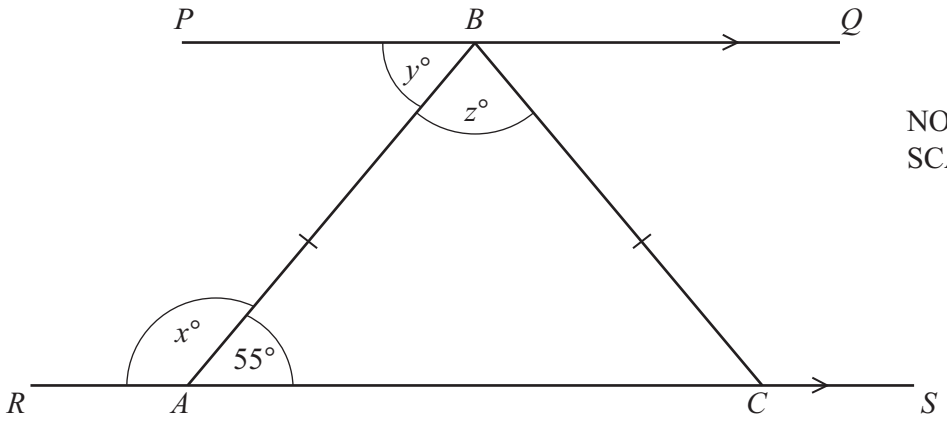
£ ..... [1]

(b) The price of a watch is £120.

Work out the price of the watch in dollars.

$ ..... [1]

6



ABC is an isosceles triangle.
PBQ and *RACS* are parallel lines.

(a) Find the value of x.

$x =$ ..... [1]

(b) Find the value of y.

$y =$ ..... [1]

(c) Find the value of z.

$z =$ ..... [2]

7 A circle has circumference 15 cm.

Find the radius of the circle.

..... cm [2]

8 Toby makes food for parties.

(a) Toby uses this formula to work out how many sandwiches to make for a party.

$$N = 3P + 18$$

N is the number of sandwiches he makes.
P is the number of people at the party.

(i) 25 people are at a party.

Work out the number of sandwiches Toby makes.

..... [2]

(ii) Toby makes 177 sandwiches for another party.

Work out the number of people at this party.

..... [2]

(b) Toby makes 4 cakes for each person at a party, plus 12 extra cakes.

Find a formula for the number of cakes, C, Toby makes for a party of P people.

..... [2]

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9 A breakfast cereal is made using only oats and raisins.
The mass of oats and the mass of raisins in the cereal are in this ratio.

oats : raisins = 30 : 12

(a) Write the ratio 30 : 12 in its simplest form.

..... : ..... [1]

(b) A box contains 560 g of this breakfast cereal.

Work out the mass of oats and the mass of raisins in the box.

Oats ..... g

Raisins ..... g
[2]

10 Simplify.

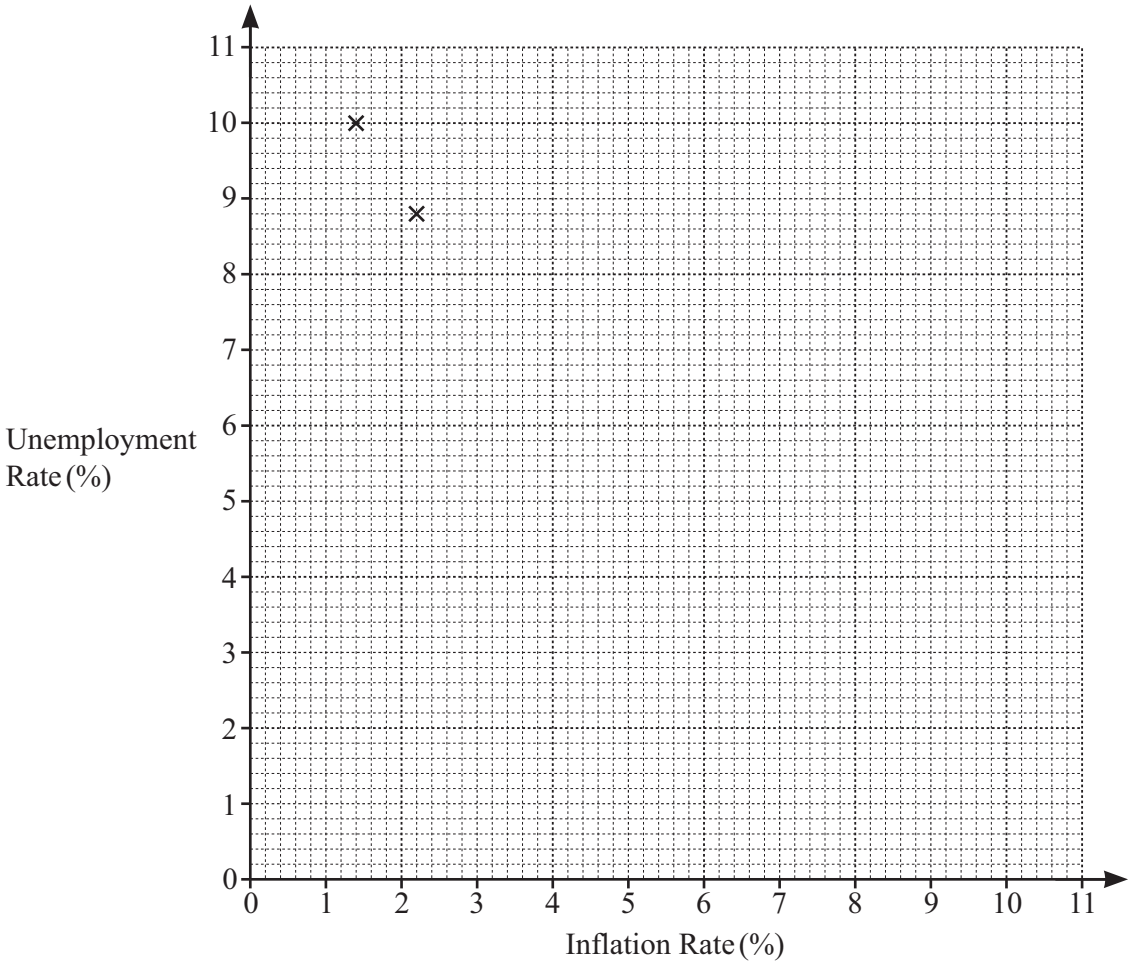
$5x^4y \times 3x^3y$

..... [2]

11 The table shows the Inflation Rate and the Unemployment Rate for 6 countries.

Inflation Rate (%)	1.4	2.2	2.4	4.6	5.0	6.0
Unemployment Rate (%)	10.0	8.8	8.4	6.2	5.0	3.6

(a) Complete the scatter diagram.
The first 2 points have been plotted for you.



[2]

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

..... [1]

(c) The mean Inflation Rate is 3.6%.
The mean Unemployment Rate is 7.0%.

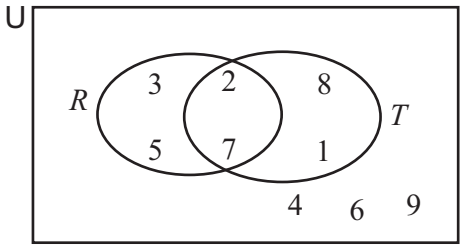
On the scatter diagram, draw a line of best fit. [2]

(d) Another country has an Inflation Rate of 3.0% .

Use your line of best fit to find an estimate of the Unemployment Rate of this country.

..... % [1]

12 (a)

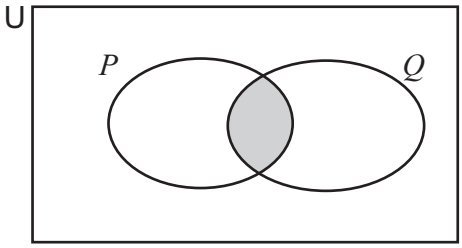


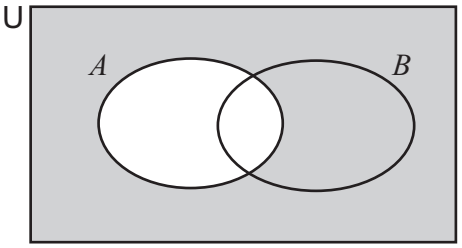
U = {1, 2, 3, 4, 5, 6, 7, 8, 9}

Write down the elements of set *R*.

..... [1]

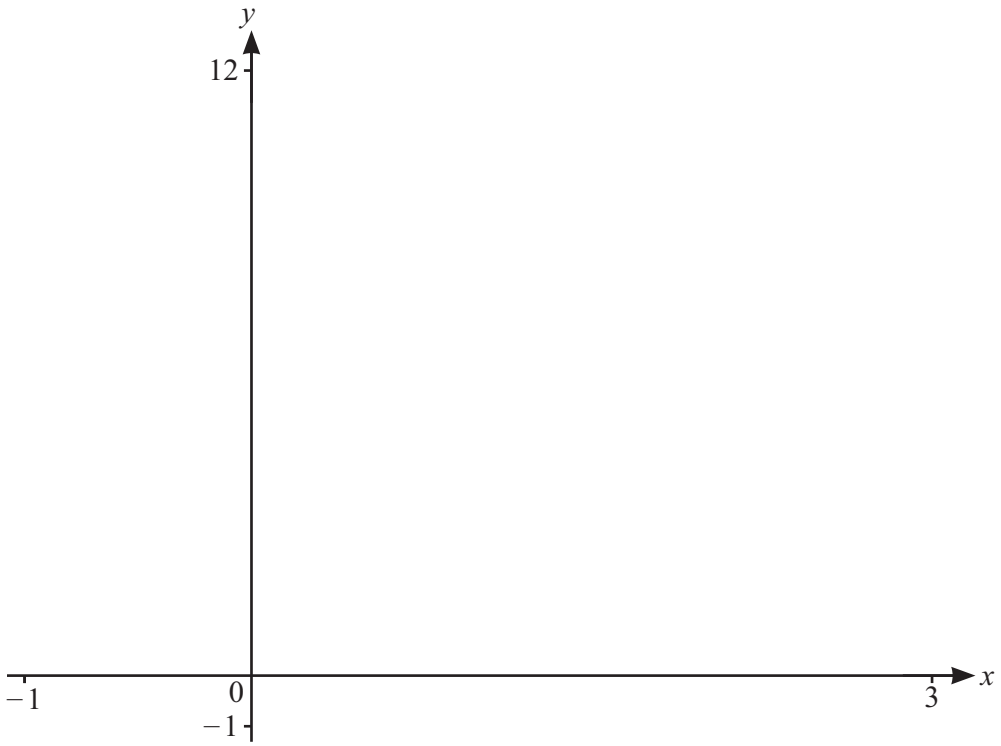
(b) Use set notation to describe each shaded region.





.... [2]

13



(a) **(i)** On the diagram, sketch the graph of $y = 2x^2 - 3x + 1$ for values of x between -1 and 3. [2]

(ii) Find the x-coordinate of the local minimum.

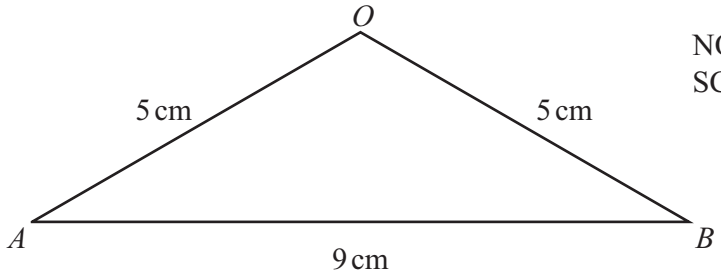
$x =$ ..... [1]

(b) On the diagram, sketch the graph of $y = x + 1$ for values of x between -1 and 3. [2]

(c) Find the coordinates of each point of intersection of $y = 2x^2 - 3x + 1$ and $y = x + 1$.

(..... , ...) and (..... , ...) [2]

14



NOT TO SCALE

The diagram shows an isosceles triangle.

Use trigonometry to calculate the size of angle AOB.

..... [4]

15 Lara invests some money in an account that pays compound interest at a rate of R% per year.
The bank uses this formula to work out the value of her investment.

$$A = 5000 \times \left[1 + \frac{8}{100}\right]^T$$

A is the value of the investment at the end of T years.

(a) Write down the amount of money Lara invests.

$ ..... [1]

(b) Write down the value of R.

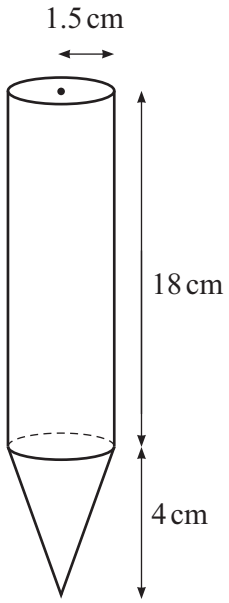
$R =$ ..... [1]

(c) Calculate the amount of **interest** Lara receives at the end of 10 years.

$ ..... [2]

Question 16 is printed on the next page.

16



NOT TO SCALE

A firework is made from a cylinder and a cone.

The cylinder has height 18 cm and radius 1.5 cm.
The cone has height 4 cm and radius 1.5 cm.

Show that the total volume of the firework is 137 cm^3, correct to 3 significant figures.

[4]