Cambridge Assessment International Education

Cambridge IGCSE™

CANDIDATE NAME									
CENTRE NUMBER						CANDIDATE NUMBER				

6745344249

CAMBRIDGE INTERNATIONAL MATHEMATICS **0607/13**

Paper 1 (Core) **May/June 2024**

45 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 and you will be given marks for correct methods even if your answer is incorrect.
- All answers should be given in their simplest form.

INFORMATION

- The total mark for this paper is 40.
- The number of marks for each question or part question is shown in brackets [ ].

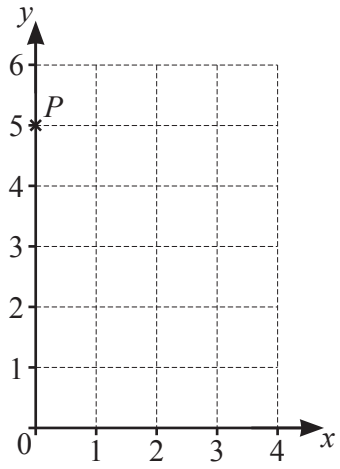
This document has **8** pages.

Formula List

Area, A, of triangle, base b, height h.	$A = \frac{1}{2}bh$
Area, A, of circle, radius r.	$A = \pi r^2$
Circumference, C, of circle, 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.	$A = \pi rl$
Curved 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.	$V = \frac{4}{3}\pi r^3$

Answer **all** the questions.

1



Write down the coordinates of point *P*.

(..... , ...) [1]

2 Change 5 litres into millilitres.

..... ml [1]

3 Write down the number of lines of symmetry for a rectangle.

..... [1]

4 Write down a prime number less than 10.

..... [1]

5 Complete the bicycle repair bill.

Item	Item cost ($)	Number of items	Total cost ($)
Tyre	5.25	2	
Brake pads		2	36
		Total cost ($)	

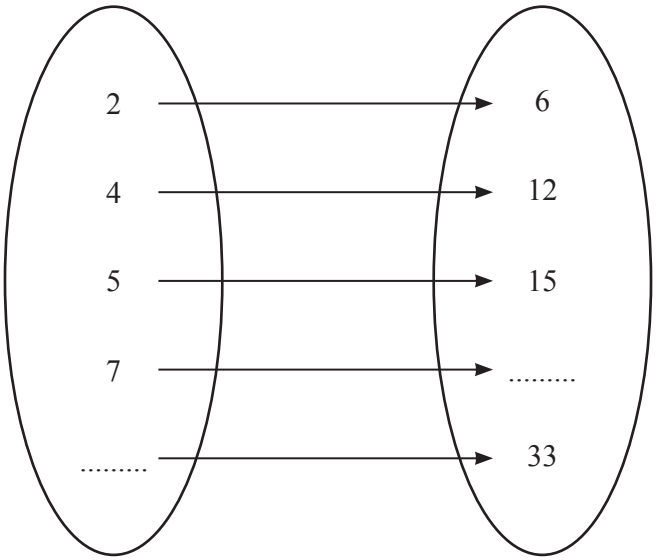
[2]

6 A film starts at 18 35 and finishes at 20 50.

Work out how long the film lasts.
Give your answer in hours and minutes.

..... h ..... min [2]

7 Complete the mapping diagram.



[2]

8 These are the ages in years of 12 cats.

7 3 6 3 10 2 5 6 9 8 3 2

(a) Find the median.

.....years [2]

(b) Find the mode.

.....years [1]

9 $P = x^2 - 2x$

Find P when $x = -3$.

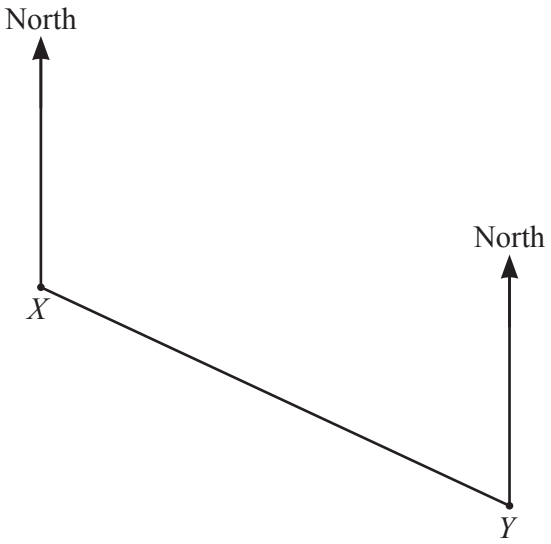
$P =$ ..... [2]

10 A bag contains 12 blue pencils and 48 red pencils.

Work out the percentage of pencils in the bag that are blue.

..... % [2]

11



Measure the bearing of Y from X.

..... [1]

12 Write down all the integer values of x that satisfy this inequality.

$$-3 < x \leqslant 3$$

..... [2]

13 Work out.

$$\frac{4}{5} - \frac{3}{8}$$

..... [2]

14 A map has a scale of 1 : 4000.
On the map, the distance between two houses is 7 cm.

Work out the actual distance between the houses.
Give your answer in metres.

..... m [2]

15 The area of a circle is $49\pi\,m^2$.

Work out the radius of the circle.

..... m [2]

16 Work out the size of one interior angle of a regular 12-sided polygon.

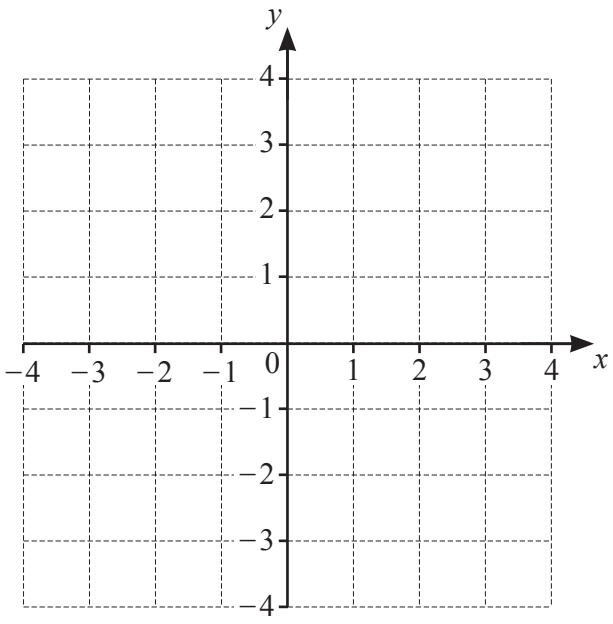
..... [3]

17 Sammy cycles 12 km in 45 minutes.

Find his average speed in km/h.

..... km/h [2]

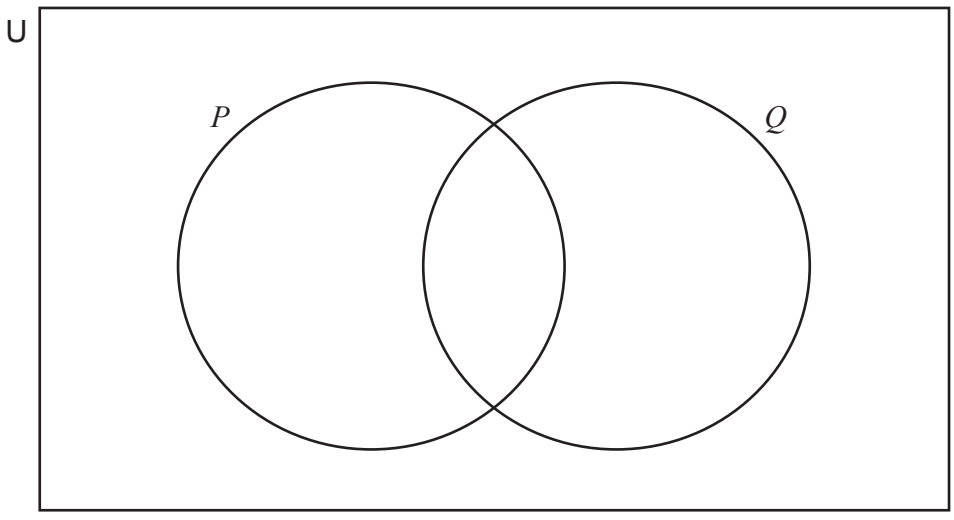
18



On the grid, draw the line $y = x + 2$. [2]

19 $\mathsf{U} = \{a, b, c, d, e, h, i, m, r, s, t, v, y\}$
$P = \{c, h, e, m, i, s, t, r, y\}$
$Q = \{m, a, t, h, s\}$

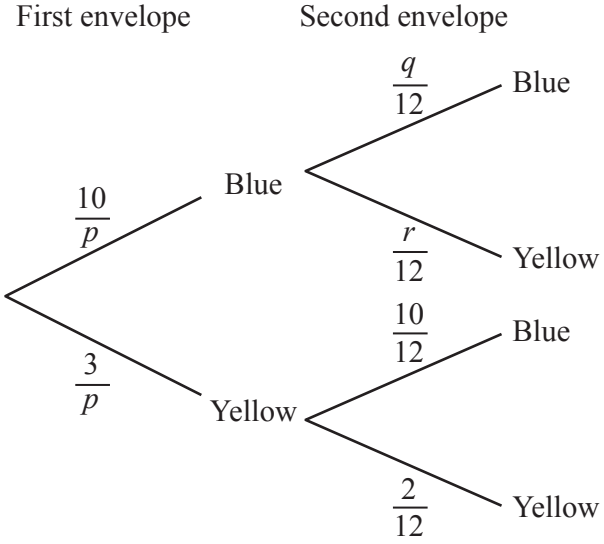
Complete the Venn diagram by writing each element in the correct region.



[2]

Questions 20 and 21 are printed on the next page.

20 A sack contains 10 blue envelopes and 3 yellow envelopes.
Two envelopes are chosen from the sack at random.



Write down the values of p, q and r.

$p =$ .....

$q =$ .....

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

21 Solve the simultaneous equations.

$$5x + y = 5$$
$$x + 2y = -17$$

$x =$ .....

$y =$ ..... [3]