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Cambridge Assessment International Education

Cambridge IGCSE™

CANDIDATE NAME

CENTRE NUMBER

CANDIDATE NUMBER

7381260635

CAMBRIDGE INTERNATIONAL MATHEMATICS **0607/11**

Paper 1 (Core) **October/November 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.

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[Turn over

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

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Answer **all** the questions.

1 Write down the value of the square root of 64.

..... [1]

2 Complete the table to show how 400 students travel to school.

	Year 10	Year 11	Total
Walk	70		85
Bicycle		20	85
Bus	85	40	
Car		25	105
Total	300		400

[3]

3 The cost of printing leaflets can be found using this formula.

Cost of printing = price per leaflet × number of leaflets + fixed charge

The price per leaflet is \$0.30 and the fixed charge is \$65.

Work out the cost of printing 1000 leaflets.

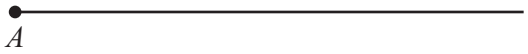
\$ ..... [2]

4 Write 0.07 as a percentage.

..... % [1]

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5 Draw an angle of 126° at A.



[1]

6 Change 1420 millilitres into litres.

..... litres [1]

7 Malik records the number of students in each class at his school.

Put a ring around the word that describes this type of data.

continuous cumulative discrete random

[1]

8 Work out the mode and the range of these numbers.

38 44 44 52 52 52 66 68

Mode .....

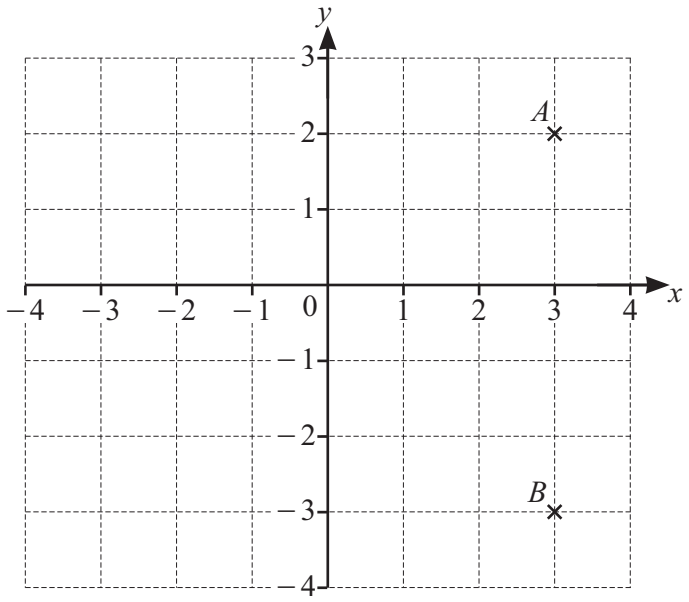
Range ..... [2]

9 Write down a common multiple of 8 and 12.

..... [1]

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10 Points A and B are plotted on a 1 cm^2 grid.



Find the distance from A to B.

..... cm [1]

11 The probability that Sylvia wins a competition is 0.38 .

Find the probability that Sylvia does not win the competition.

..... [1]

12 Solve the equation.

$$2x - 1 = 7$$

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

13 Write $2 \times 2 \times 2 \times 2$ as a power of 2.

..... [1]

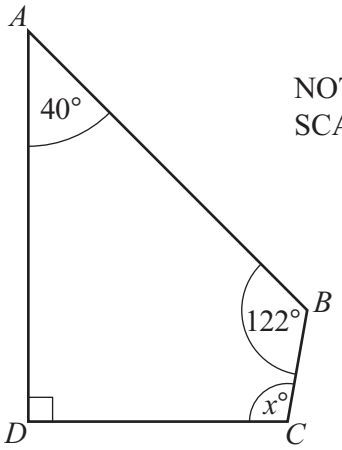
14 Solve the inequality.

$$6x \geqslant 42$$

..... [1]

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15



The diagram shows the quadrilateral $ABCD$.

Find the value of x.

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

16 Simplify fully.

$$\frac{3a}{5} \times \frac{b}{2a}$$

..... [2]

17 $X = \{0, 1, 2, 3, 4, 5, 6\}$
$Y = \{\text{positive even numbers less than } 8\}$

Complete the following statements using set notation.

Y X

5 ..... Y

[2]

18 Multiply out.

$$8(m-3)$$

..... [1]

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19 Write down all the prime factors of 30.

..... [2]

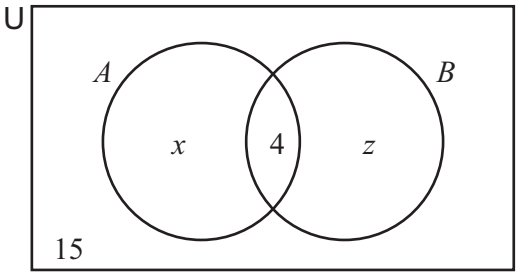
20 Solve the simultaneous equations.

$$3p + 2q = 29$$
$$5p - 2q = 27$$

$p =$ .....

$q =$ ..... [2]

21 A group of students are asked whether they like athletics (A) or basketball (B).
The Venn diagram shows the number of students in each subset.



$n(U) = 30$ $n(A) = 9$

(a) Find the value of x.

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

(b) Find the value of z.

$z =$ ..... [1]

22 Work out $\dfrac{5 \times 10^7}{2 \times 10^3}$.

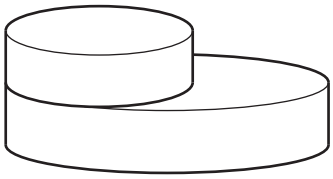
Give your answer in standard form.

..... [2]

Questions 23 and 24 are printed on the next page.

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23



NOT TO SCALE

A sculpture is made from two cylinders.
The height of each cylinder is 0.5 m.
The diameter of the larger cylinder is 4 m and the diameter of the smaller cylinder is 2 m.

Work out the volume of the sculpture.
Give your answer in terms of π.

..... m^3 [3]

24 ▲ is a fraction.

Work out the missing fraction.

$$2\frac{1}{4} \div \blacktriangle = 3$$

▲ = ... [3]

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