



# Cambridge IGCSE™

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**CAMBRIDGE INTERNATIONAL MATHEMATICS**

**0607/01**

Paper 1 (Core)

**For examination from 2020**

SPECIMEN PAPER

**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 **12** pages. Blank pages are indicated.

**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 Work out.

(a)  $23 - 6 \times 3$

..... [1]

(b)  $8 \div (32 \div 4)$

..... [1]

2 Write down the five factors of 16.

..... [2]

3 Joe buys a magazine for \$1.50 and a drink for \$2.35 .

How much change does Joe get from \$5?

\$ ..... [2]

- 4 (a) Write down the next fraction in this sequence.

$$\frac{1}{2}, \frac{1}{5}, \frac{1}{8}, \frac{1}{11}, \frac{1}{14}, \dots$$

..... [1]

- (b) The  $n$ th term of a sequence is  $n^2 - 3$ .

Find the first three terms of this sequence.

....., ....., ..... [2]

- 5 In the last ten football matches, West Port FC scored the following numbers of goals.

2      5      1      1      4      7      1      3      1      4

Find

- (a) the range,

..... [1]

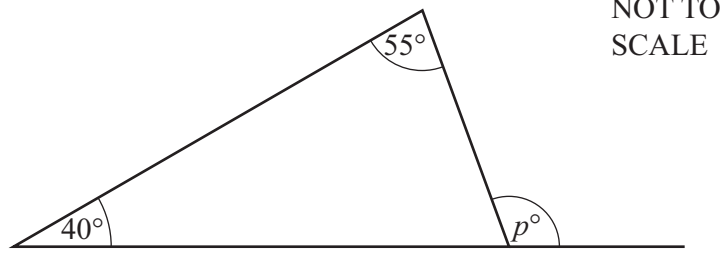
- (b) the median,

..... [2]

- (c) the mean.

..... [2]

6 (a)

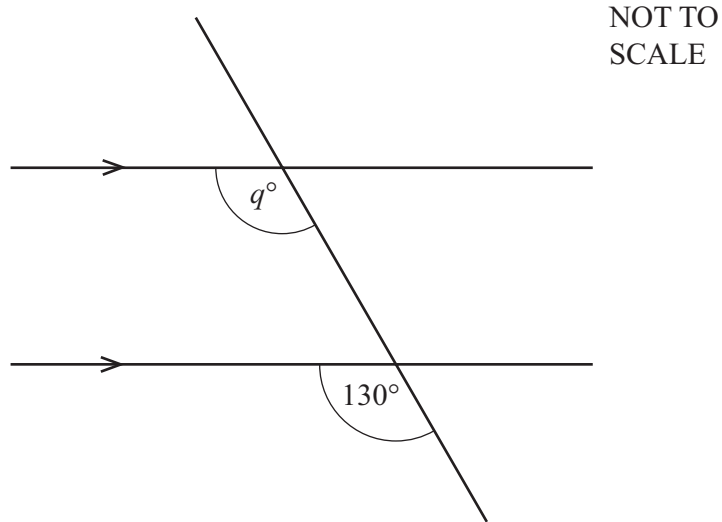


The diagram shows a triangle with one side extended.

Work out the size of angle  $p$ .

$p = \dots\dots\dots$  [2]

(b)



Work out the size of angle  $q$ .

Give a reason for your answer.

$q = \dots\dots\dots$  because  $\dots\dots\dots$

$\dots\dots\dots$  [2]

7 Change 5.6 square centimetres into square millimetres.

..... mm<sup>2</sup> [1]

8 Write the following numbers in standard form.

(a) 346

..... [1]

(b) 0.00216

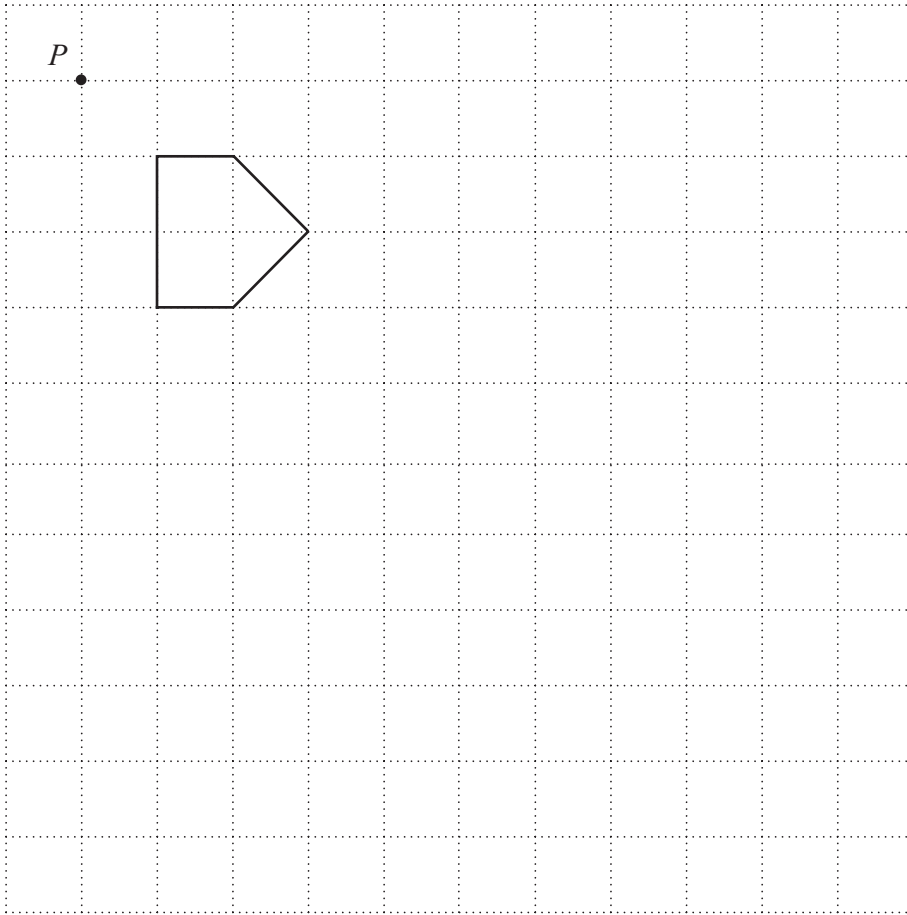
..... [1]

9 Estimate the answer to the following calculation by rounding each number to 1 significant figure.  
**Show all your working.**

$$\frac{19.4 + 32.96}{0.472}$$

..... [2]

- 10 Draw the enlargement of the pentagon, centre  $P$ , scale factor 3.



[2]

- 11 Peter is  $x$  years old.  
Jane is 4 years older than Peter.

Write down an expression, in terms of  $x$ , for Jane's age.

..... [1]

12 Make  $r$  the subject of this formula.

$$A = 4\pi r^2$$

$$r = \dots\dots\dots [2]$$

13 Solve the simultaneous equations.

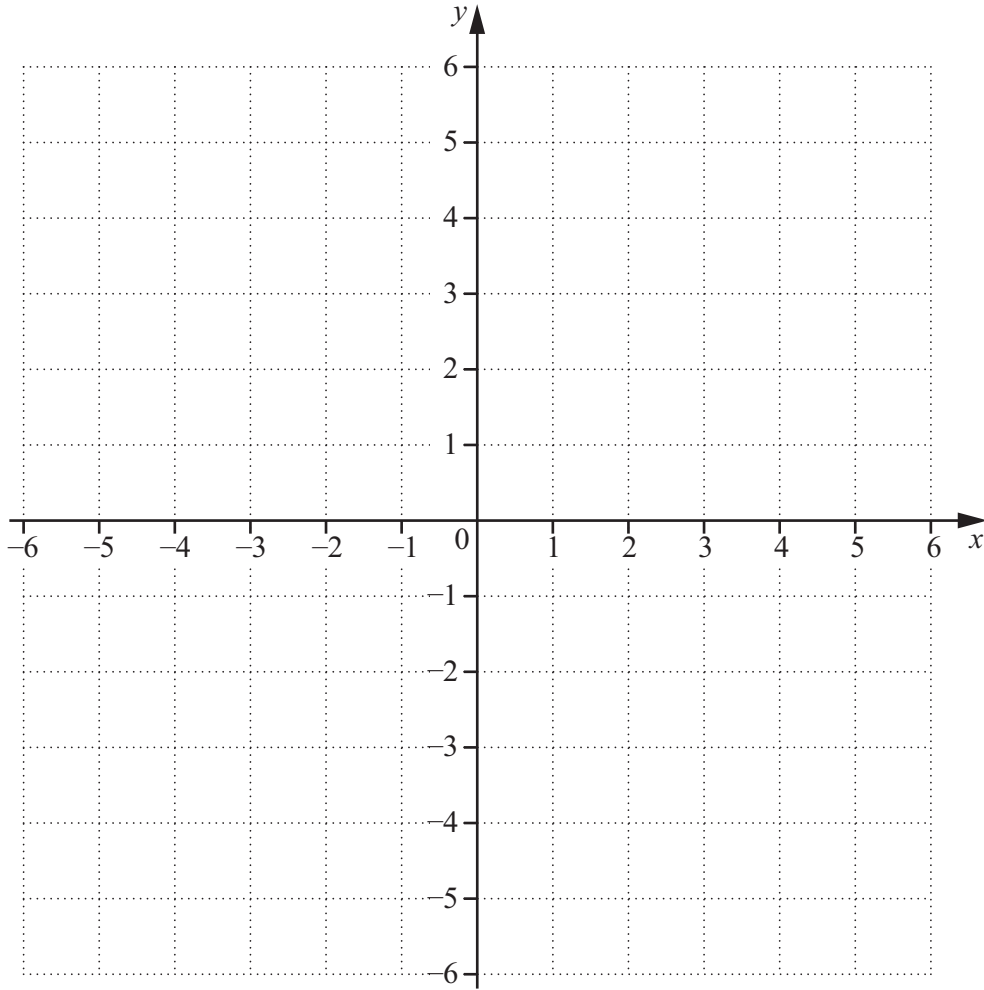
$$6x + 10y = 26$$

$$2x + 5y = 12$$

$$x = \dots\dots\dots$$

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





(a) On the grid, plot the points  $A(-3, 3)$  and  $B(5, -3)$ . [2]

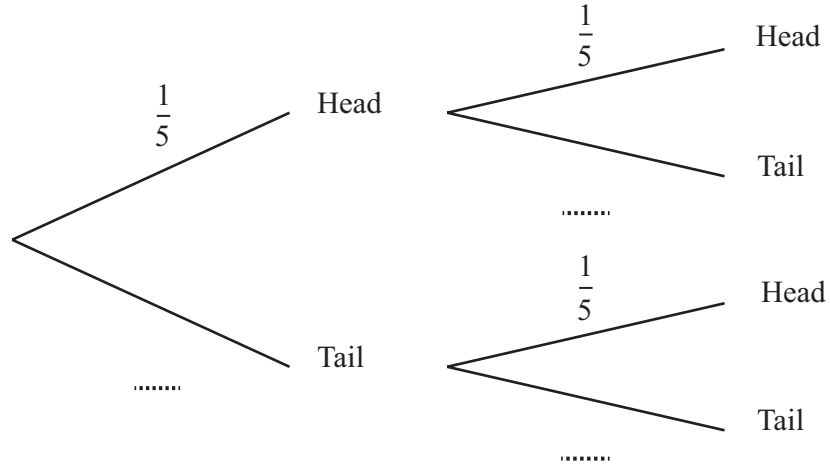
(b) Find the gradient of the line  $AB$ .

..... [2]

15 A biased coin is spun two times.

The probability of the coin showing a head is  $\frac{1}{5}$ .

(a) Complete the tree diagram.

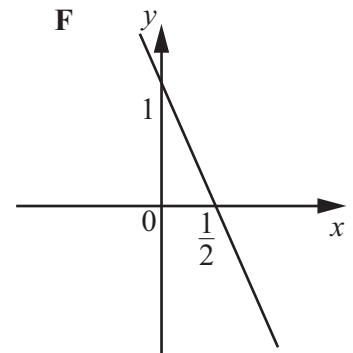
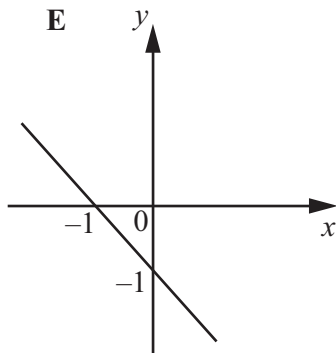
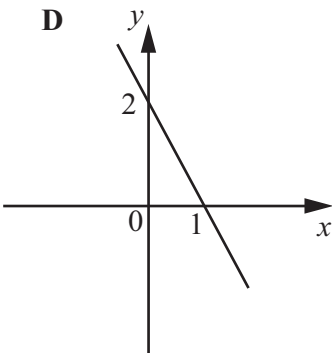
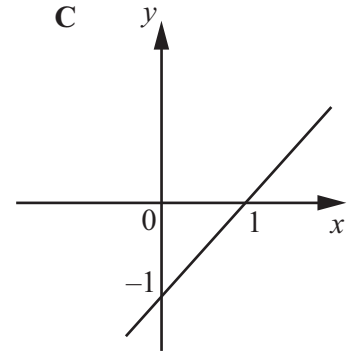
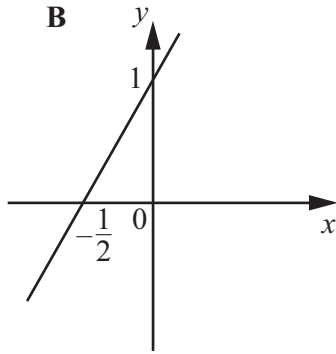
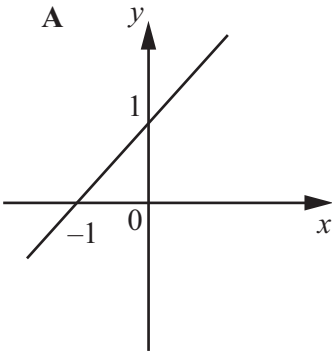


[1]

(b) Find the probability of the coin showing a head both times.

..... [2]

16



Write down the letter of the diagram that shows

(a)  $y = -x - 1$ ,

..... [1]

(b)  $y = 2x + 1$ .

..... [1]

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