Cambridge Assessment International Education

Cambridge IGCSE™

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CENTRE NUMBER						CANDIDATE NUMBER				

4821146894

CAMBRIDGE INTERNATIONAL MATHEMATICS **0607/11**

Paper 1 (Core) **October/November 2020**

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.

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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 Work out.

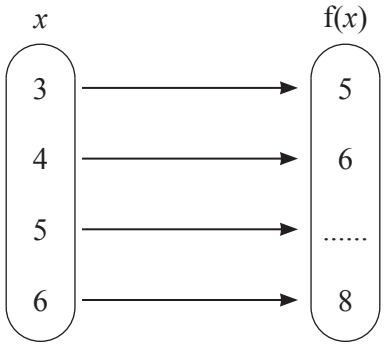
$15 \div 3 + 2$

..... [1]

2 Change 400 centimetres into metres.

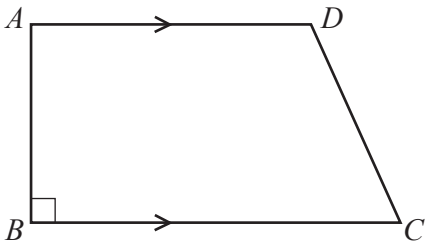
..... m [1]

3 Complete the mapping diagram.



[1]

4



NOT TO SCALE

(a) Write down the mathematical name for this quadrilateral.

..... [1]

(b) Write down the mathematical name for the angle at *B*.

..... [1]

5 Write down the mathematical name for the perimeter of a circle.

..... [1]

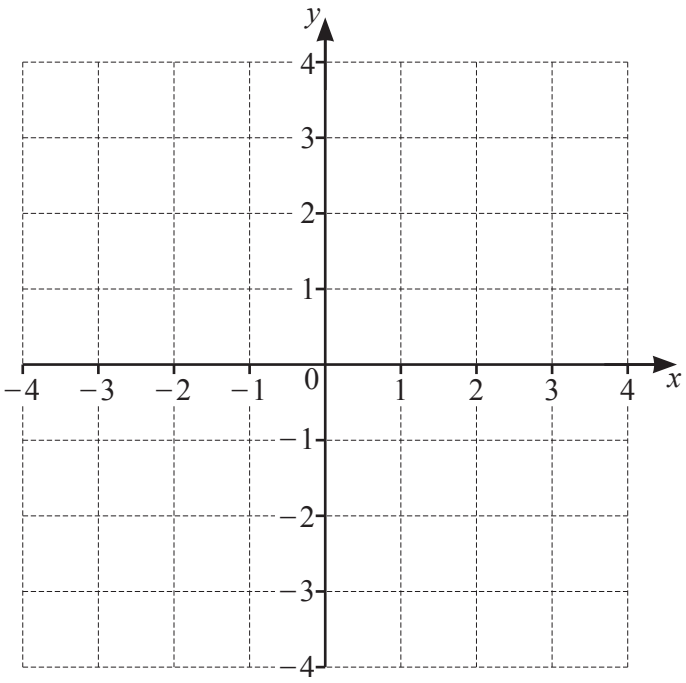
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6 Ajay is facing east. He turns 90° clockwise.

Write down the direction he is now facing.

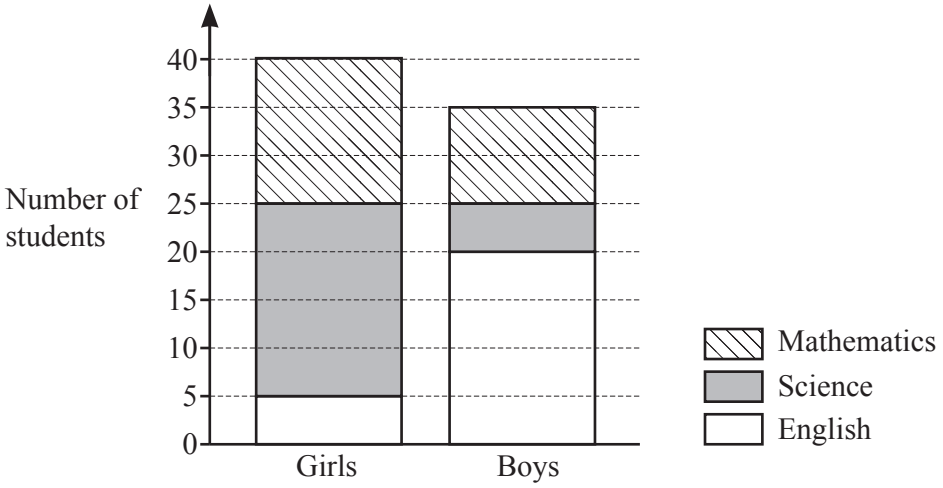
..... [1]

7



On the grid, plot the point (2, 3). [1]

8 Some students were each asked to name their favourite subject.
The bar chart shows the results.



(a) Work out how many more boys than girls named English as their favourite subject.

..... [1]

(b) Work out how many students named mathematics as their favourite subject.

..... [1]

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9 Imran records data about cars.

Put a tick (✓) in each row to show whether the data is discrete or continuous.

Data	Discrete	Continuous
Number of seats		
Kilometres per litre		
Age in complete years		
Maximum speed		

[2]

10 The list shows the mark for each of eleven students in an examination.

17 23 12 36 14 28 20 19 15 32 29

(a) Find the range.

..... [1]

(b) Find the median.

..... [2]

(c) Find the upper quartile.

..... [1]

11 Write 526.316 correct to 2 significant figures.

..... [1]

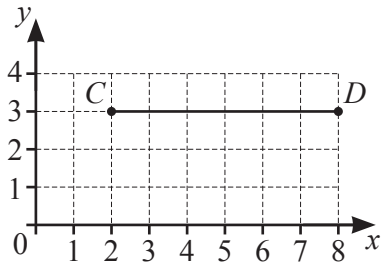
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12 A is the point (3, 2) and B is the point (3, 4).

Find the length of AB.

..... [1]

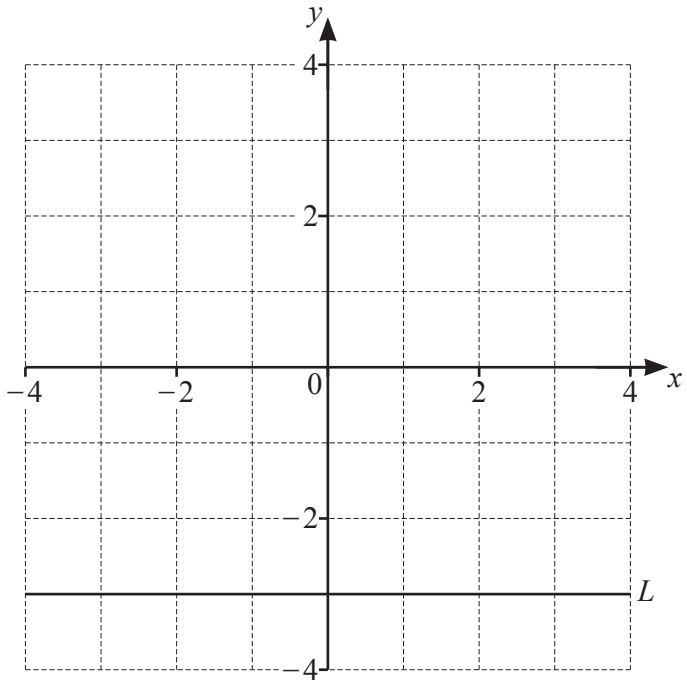
13



Find the coordinates of the mid-point of the line CD.

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

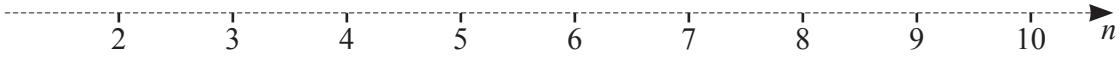
14



Write down the equation of the line L.

..... [1]

15 Show the inequality $4 \leqslant n < 9$ on the number line.



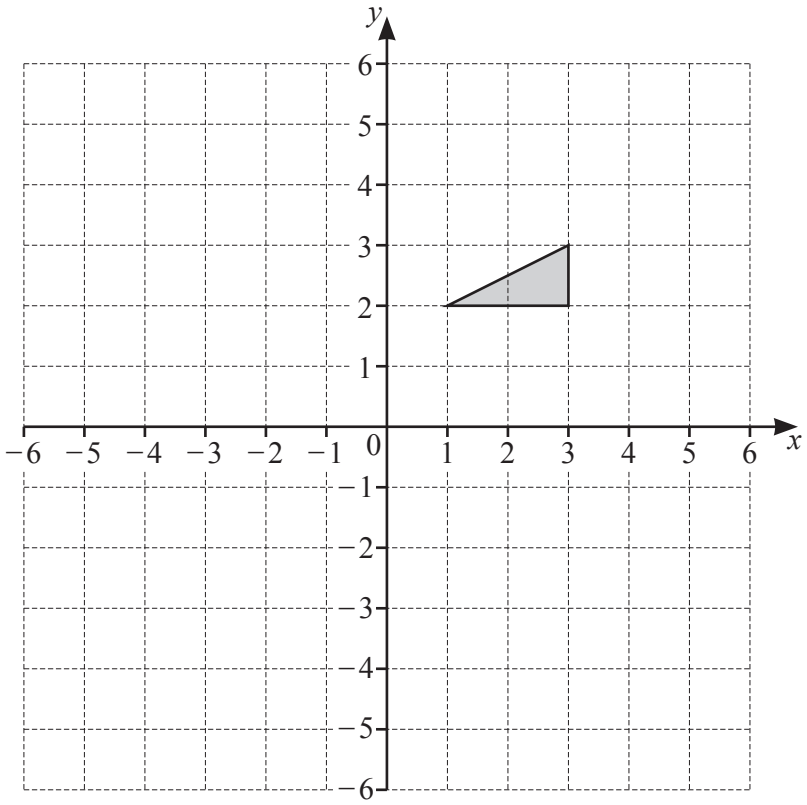
[2]

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16 Solve $4x = 20$.

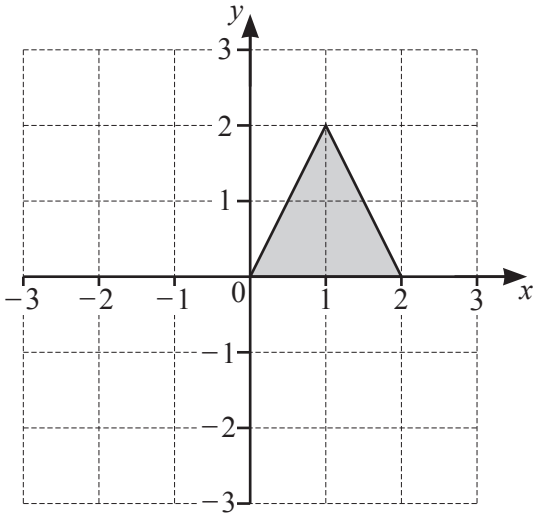
$x =$ ..... [1]

17 (a)



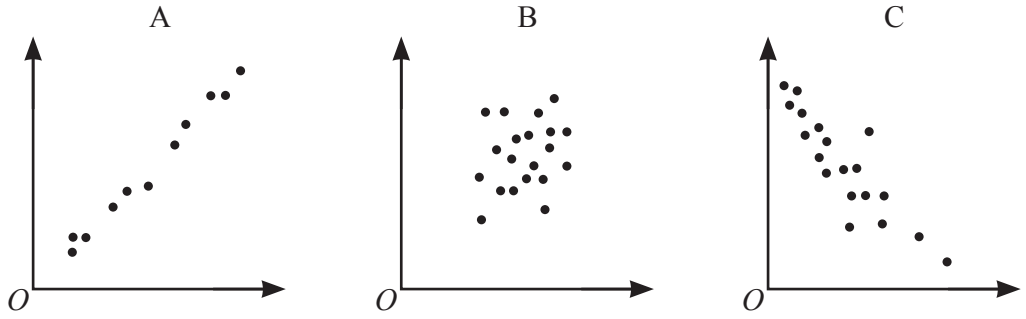
Reflect the triangle in the line $x = -1$. [2]

(b)



Rotate the triangle through 90° anti-clockwise about the origin. [2]

18 These diagrams show three different types of correlation.



(a) Write down the letter of the diagram which shows negative correlation.

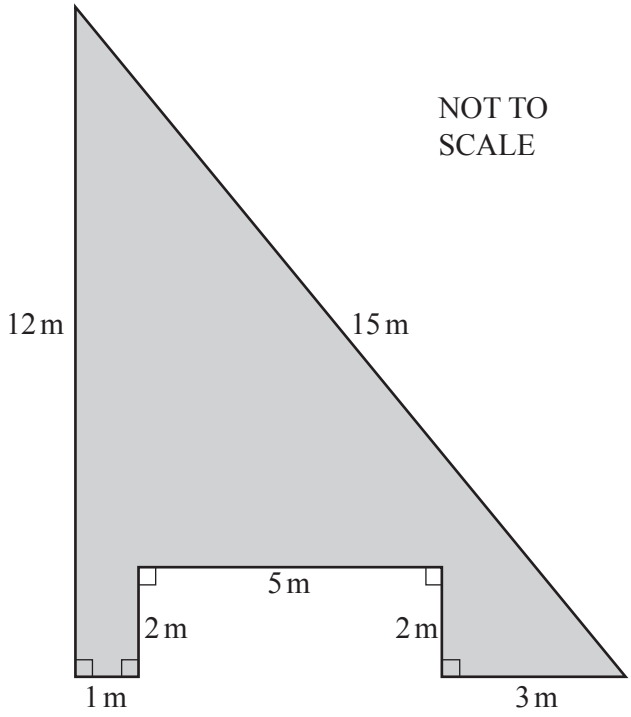
..... [1]

(b) The number of bottles of water sold in a shop increases as the temperature rises.

Which diagram, A, B or C, shows this correlation?

..... [1]

19

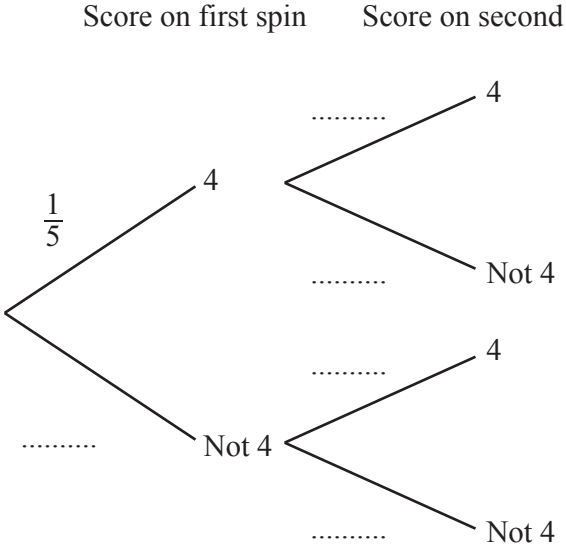


Work out the shaded area.

..... m^2 [3]

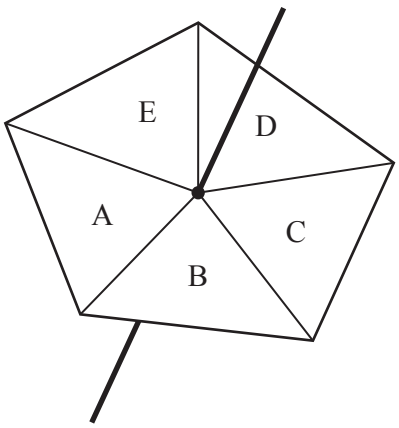
20 (a) Xiong spins a fair 5-sided spinner, numbered 1, 2, 3, 4, 5, two times.

Complete the tree diagram.



[2]

(b)

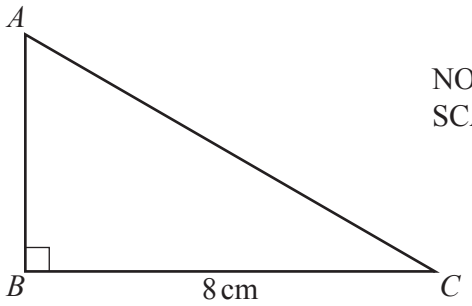


This fair 5-sided spinner is spun 200 times.

Work out the expected number of times it lands on C.

..... [2]

21



NOT TO SCALE

In the right-angled triangle ABC, $BC = 8$ cm.

$\sin C = 0.6$ $\cos C = 0.8$ $\tan C = 0.75$

Find the length of AB.

..... cm [2]

22 Find the lowest common multiple (LCM) of 10 and 12.

..... [2]

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