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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.

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 .

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

3Answer **all** the questions.

- 1**
- Work out.

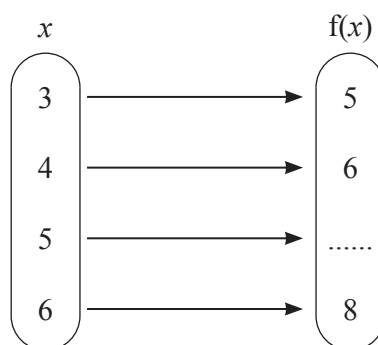
$$15 \div 3 + 2$$

..... [1]

- 2**
- Change 400 centimetres into metres.

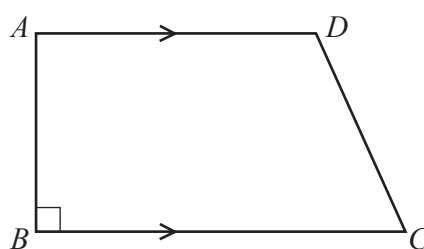
..... m [1]

- 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]

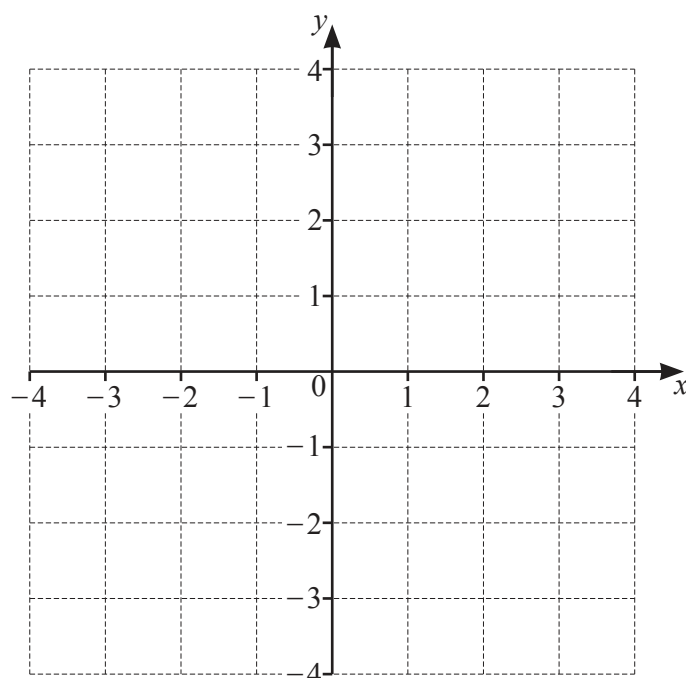
4

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

Write down the direction he is now facing.

..... [1]

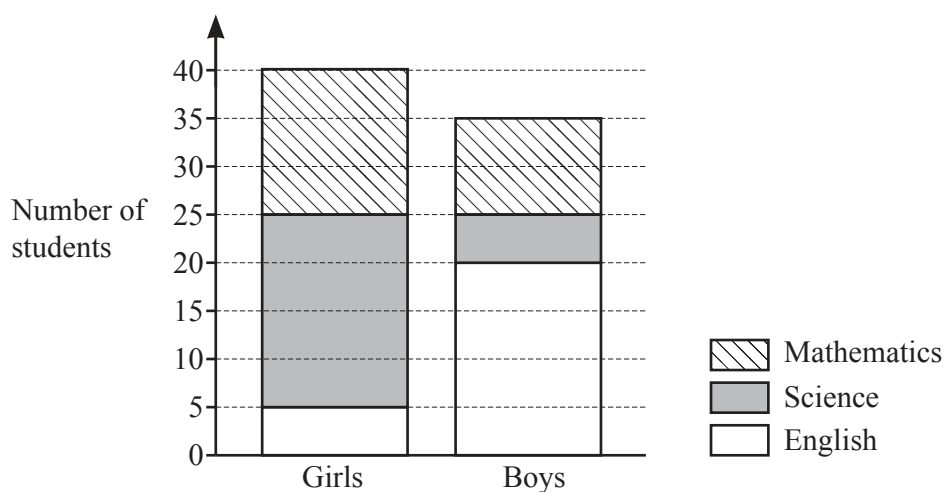
7



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]

5

- 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]

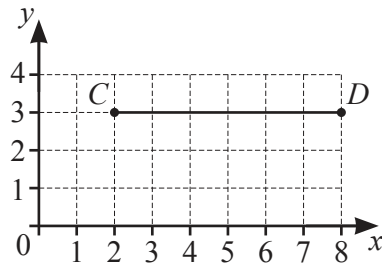
6

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

Find the length of AB .

..... [1]

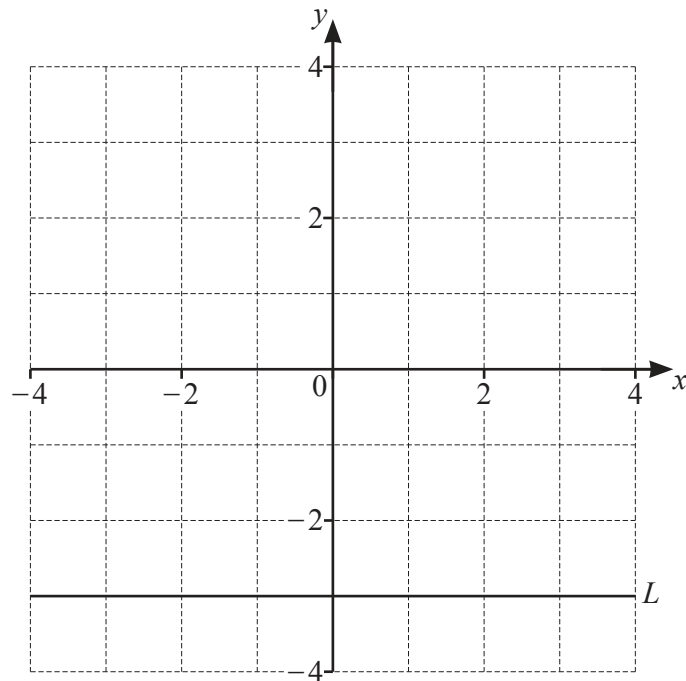
13



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

(..... ,) [1]

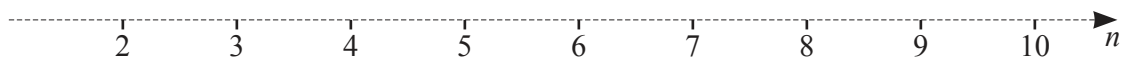
14



Write down the equation of the line L .

..... [1]

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

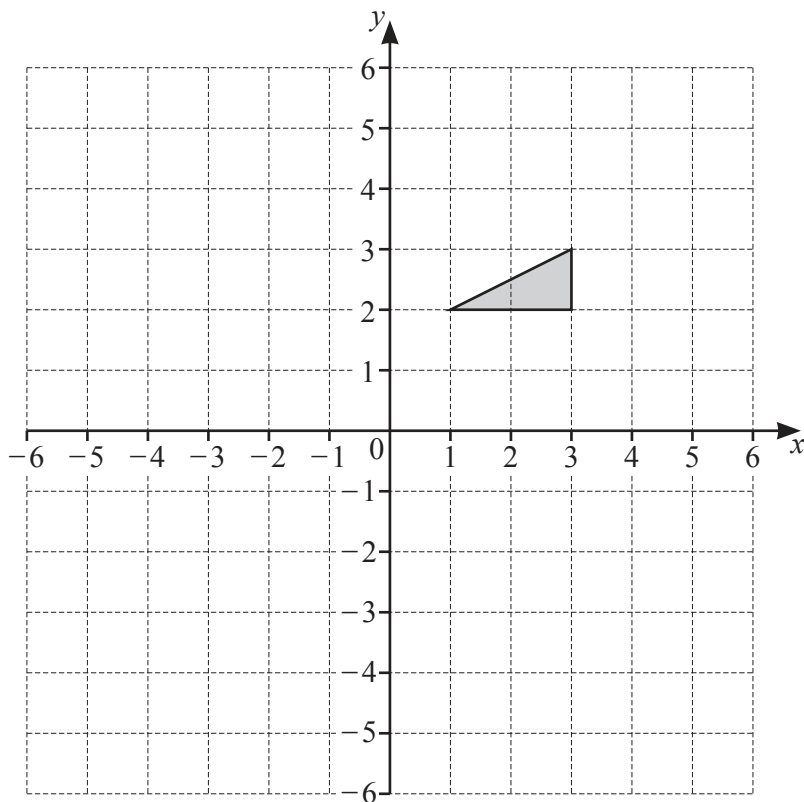


[2]

16 Solve $4x = 20$.

$x = \dots\dots\dots$ [1]

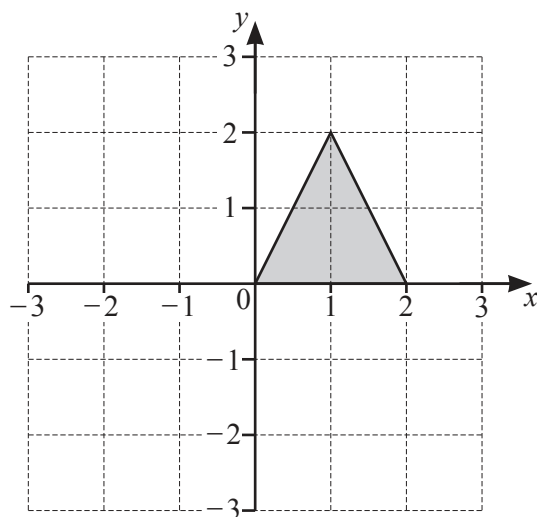
17 (a)



Reflect the triangle in the line $x = -1$.

[2]

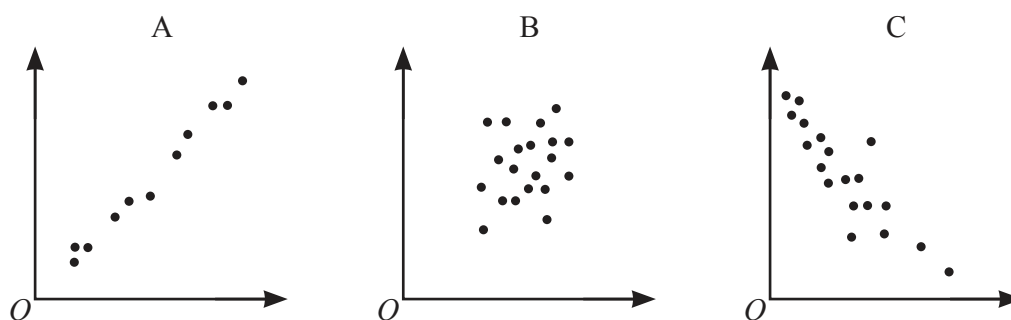
(b)



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.

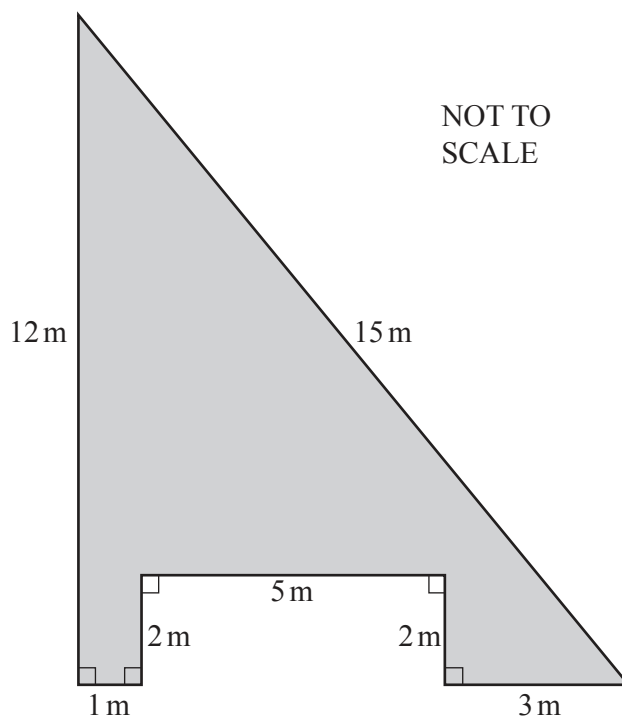
..... [1]

(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



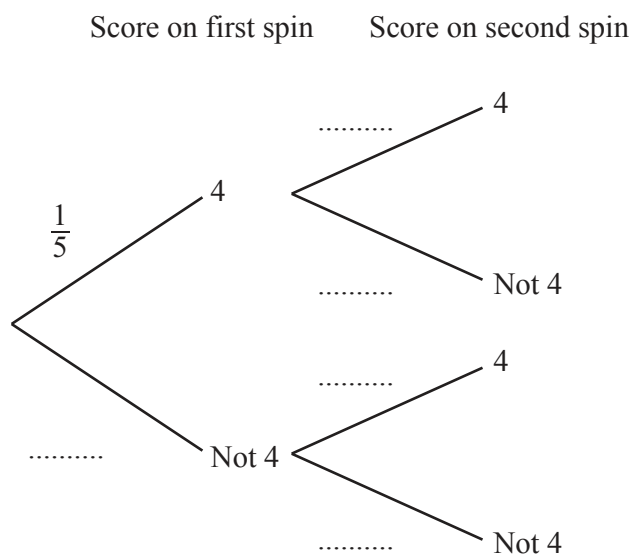
Work out the shaded area.

..... m^2 [3]

9

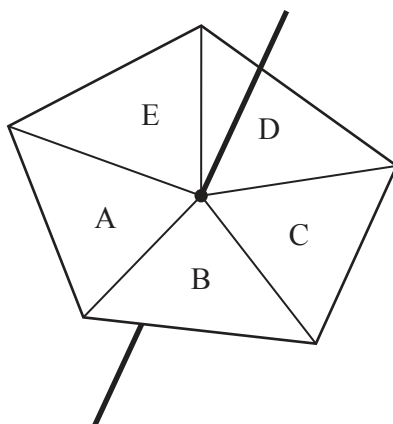
- 20 (a) Xiong spins a fair 5-sided spinner, numbered 1, 2, 3, 4, 5, two times.

Complete the tree diagram.



[2]

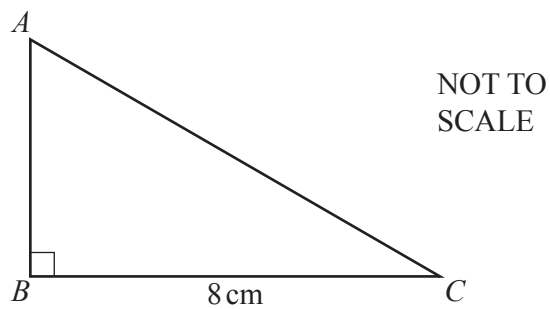
(b)



This fair 5-sided spinner is spun 200 times.

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

..... [2]

10**21**

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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