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CAMBRIDGE INTERNATIONAL MATHEMATICS

0607/01

Paper 1 Non-calculator (Core)

For examination from 2025

SPECIMEN PAPER

1 hour 15 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. You will be given marks for correct methods even if your answer is incorrect.

INFORMATION

- The total mark for this paper is 60.
- The number of marks for each question or part question is shown in brackets [].

This document has **12** pages.

List of formulas

Area, A , of triangle, base b , height h . $A = \frac{1}{2}bh$

Area, A , of circle of radius r . $A = \pi r^2$

Circumference, C , of circle of 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 . $A = \pi rl$

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

Calculators must **not** be used in this paper.

1 Write the number seventeen thousand and one in figures.

..... [1]

2 This is a list of numbers.

22 23 24 25 26 27 28 29

From this list, write down

(a) an even number

..... [1]

(b) the square number

..... [1]

(c) the cube number

..... [1]

(d) the factor of 88

..... [1]

(e) a multiple of 4.

..... [1]

3 Write 36 as a product of its prime factors.

..... [2]

4 These are the midday temperatures in °C in a town for the first 20 days of April.

19 19 19 21 22 21 19 21 19 19
 21 21 22 19 21 21 22 22 19 20

(a) Complete the frequency table.

Temperature (°C)	Frequency
19	
20	
21	
22	

[2]

(b) Work out

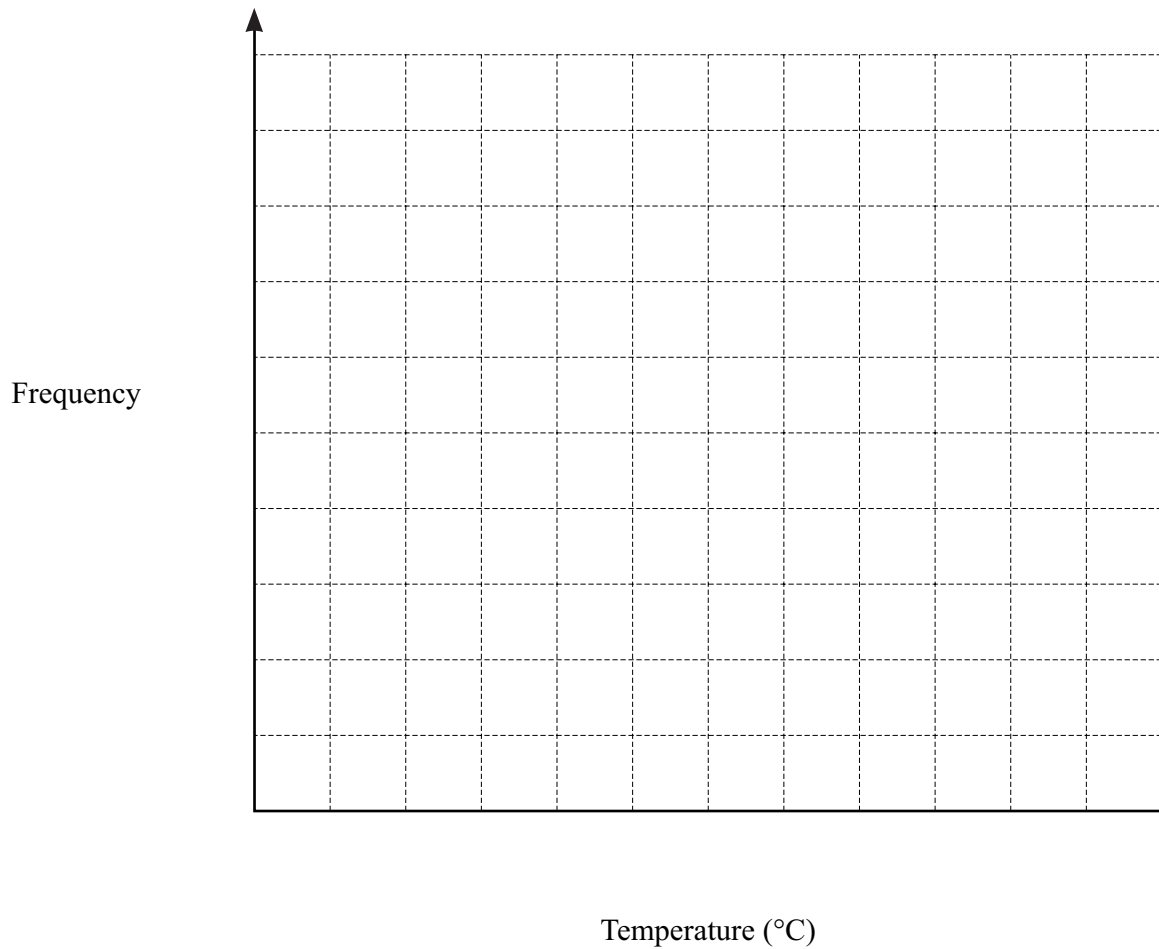
(i) the range of the temperatures

..... °C [1]

(ii) the median of the temperatures.

..... °C [2]

(c) Use the frequency table to draw a bar chart of the temperatures.



[3]

5 $\frac{n}{20} = 45\%$.

Find the value of n .

$n = \dots\dots\dots$ [2]

6 Show that $\frac{1}{6} + \frac{3}{4} = \frac{11}{12}$.

[2]

7 This table shows the cost of buying flowers.

Flower	Cost per flower
Rose	\$3
Tulip	\$1.50
Lily	\$6

Sally wants to buy some of these flowers for exactly \$9.
For example, Sally can buy two tulips and one lily for exactly \$9.

Find **four** other ways that Sally can buy flowers for exactly \$9.

- 1
- 2
- 3
- 4 [4]

8 Solve.

$$\frac{3}{x-1} = 4$$

$$x = \dots\dots\dots [3]$$

9 Factorise.

$$2a^2b - ab^4$$

$$\dots\dots\dots [2]$$

10 Simplify $\frac{3t^2}{4t}$.

..... [1]

11 Find the value of x in each of the following.

(a) $a^x \times a^3 = a^6$

$x =$ [1]

(b) $\frac{t^8}{t^x} = t^2$

$x =$ [1]

12 Find the highest common factor (HCF) of 10 and 26.

..... [1]

13 This is a formula.

$$C = 25 + 40h$$

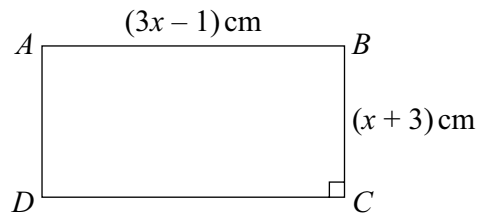
(a) Find the value of C when $h = 1.5$.

$C =$ [1]

(b) Rearrange this formula to make h the subject.

$h =$ [2]

14

NOT TO
SCALE

Rectangle $ABCD$ has length $(3x - 1)$ cm and height $(x + 3)$ cm.
The perimeter of $ABCD$ is 60 cm.

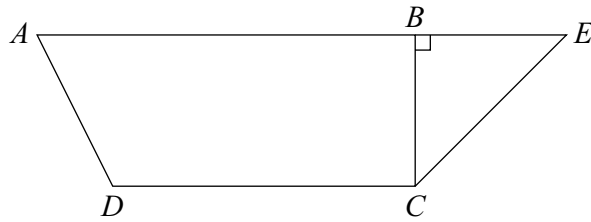
(a) Show that $x = 7$.

[3]

(b) Using $x = 7$, work out the area of rectangle $ABCD$.

..... cm^2 [3]

- 15 The diagram shows a trapezium, $ABECD$.
 BCE is a right-angled isosceles triangle.
 $BC = 12$ cm.



NOT TO
SCALE

- (a) Write down the length of BE .

$BE = \dots\dots\dots$ cm [1]

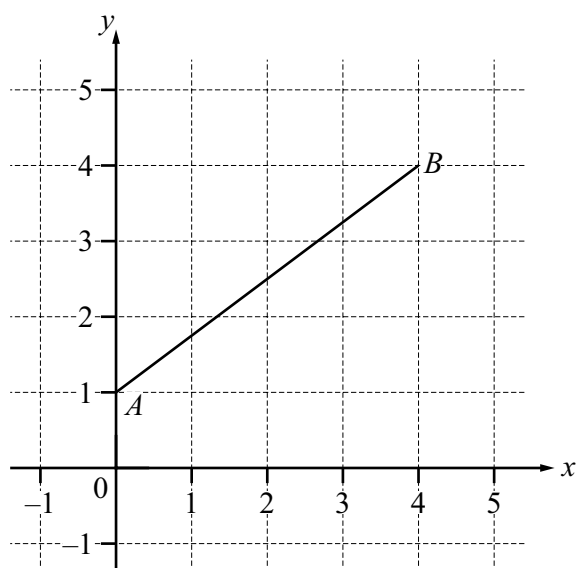
- (b) Work out the size of angle BEC .

$\dots\dots\dots$ [2]

- (c) Work out the size of the **reflex** angle DCE .

$\dots\dots\dots$ [2]

16 The diagram shows the line AB drawn on a 1 cm^2 grid.



(a) Write down the coordinates of point A and the coordinates of point B .

A (..... ,)

B (..... ,)
[2]

(b) Work out the gradient of the line AB .

..... [2]

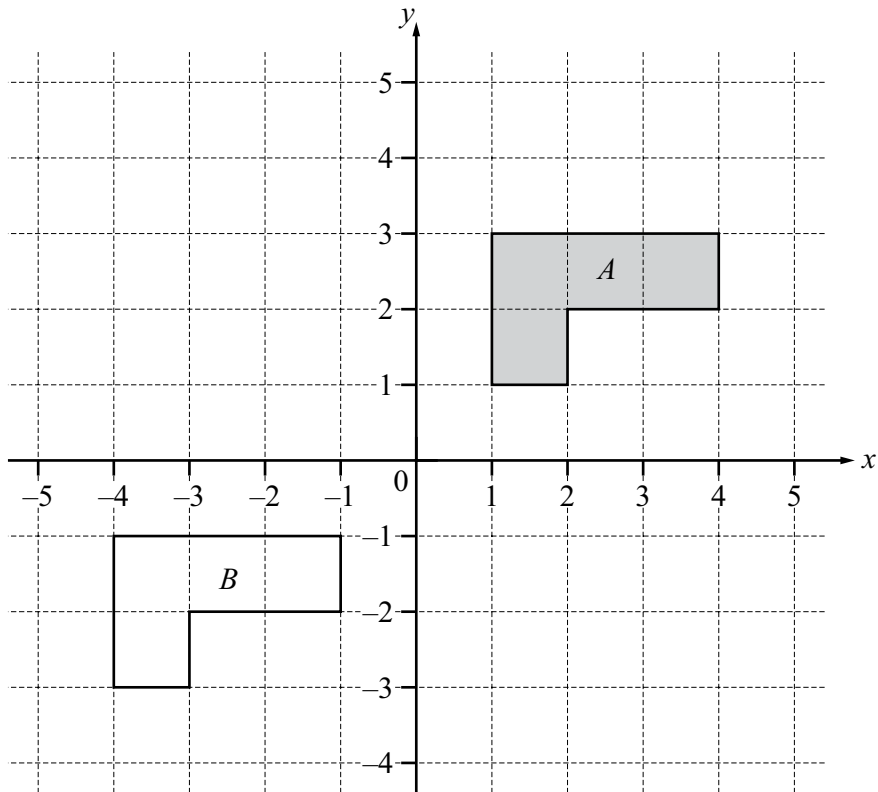
(c) AB is the hypotenuse of a right-angled triangle ABC .

Write down the coordinates of a possible position for point C .

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

(d) Work out the perimeter of triangle ABC .

..... cm [3]



(a) Reflect shape *A* in the *y*-axis. [1]

(b) Describe fully the **single** transformation that maps shape *A* onto shape *B*.

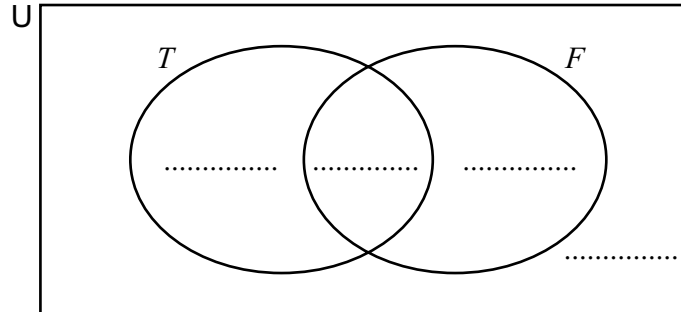
.....

..... [2]

Question 18 is printed on the next page.

- 18 There are 25 children in a class.
10 children play tennis (T).
16 children play football (F).
4 children play both tennis and football.

Complete the Venn diagram to show this information.



[2]

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