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MATHEMATICS**0580/12**

Paper 1 Non-calculator (Core)

February/March 2026**1 hour 30 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. Do **not** use correction fluid or tape.
- 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.

INFORMATION

- The total mark for this paper is 80.
- The number of marks for each question or part question is shown in brackets [].

This document has **16** pages. Any blank pages are indicated.

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 (a) Subtract 9 from 1321.

..... [1]

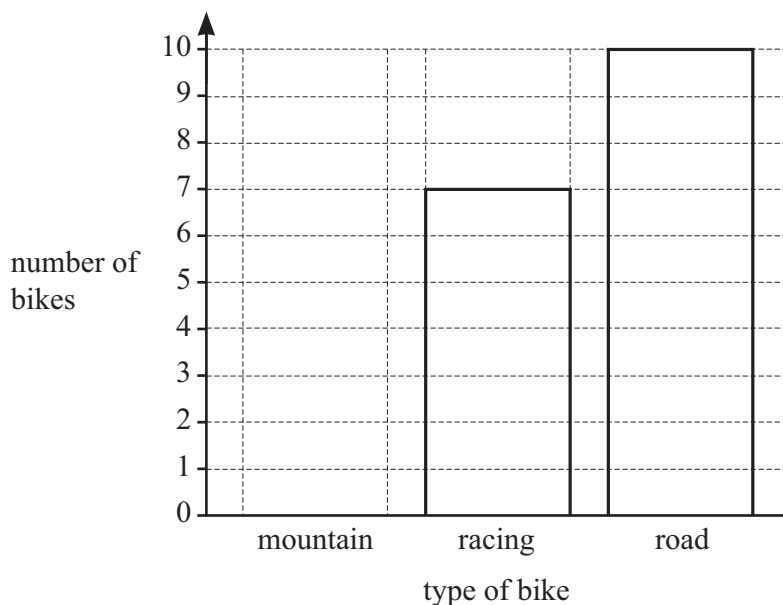
- (b) Divide 814 by 2.

..... [1]

- (c) Write down the multiple of 6 that is nearest to 20.

..... [1]

- 2 25 people own a bike.
Flo asks each of these 25 people what type of bike they own.
The bar chart shows some of these results.



- (a) Complete the bar chart for the mountain bikes. [2]

- (b) How many more people own a road bike than own a racing bike?

..... [1]

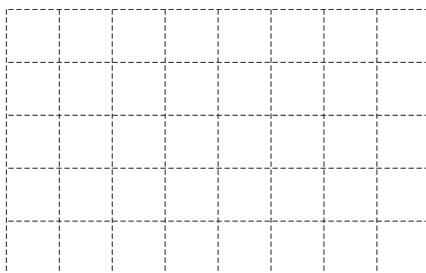
3 (a) Write 0.47 as a percentage.

..... % [1]

(b) Write $\frac{9}{100}$ as a decimal.

..... [1]

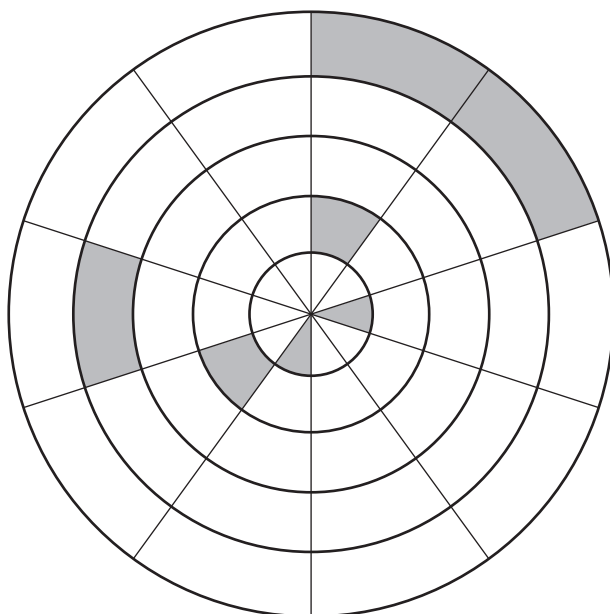
4 (a)



Shade $\frac{3}{10}$ of the squares on the grid.

[1]

(b)



7 of the regions are shaded.

Shade 3 more regions so that $\frac{1}{5}$ of the total area is shaded.

[1]



- 5 (a) These are the first four terms of a sequence.

6000 600 60 6

Write down the term-to-term rule for this sequence.

..... [1]

- (b) These are the first four terms of a different sequence.

27 21 15 9

Find the next two terms in the sequence.

..... , [2]

- 6 An isosceles triangle has a side length 4 cm and a side length 6 cm.
There are two possible triangles that can be drawn that are **not** congruent to each other.

Construct these two triangles.

One 4 cm side has been drawn for each of the triangles.



[4]

- 7 Krish has $6x + 4$ marbles.
Jo has $9 - x$ marbles.

- (a) Write down an expression for the total number of marbles that Krish and Jo have.
Give your answer in its simplest form.

..... [2]

- (b) Krish has more marbles than Jo.

Write down an expression for how many more marbles Krish has than Jo.
Give your answer in its simplest form.

..... [2]

- 8 Write down the two prime numbers that are greater than 20 but less than 30.

....., [2]

- 9 (a) Work out the difference between 5^2 and 2^3 .

..... [2]

- (b) Write down the reciprocal of 4.

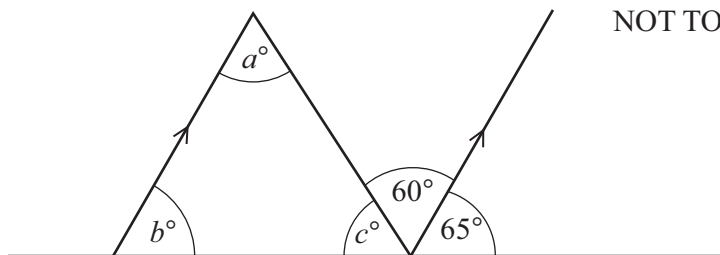
..... [1]

- (c) Write down an irrational number that is between 4 and 5.

..... [1]



10



Work out the values of a , b and c .

$a =$

$b =$

$c =$

[3]

11 Put **one** pair of brackets into each calculation to make it correct.

(a) $6 \times 5 - 3 + 5 = 42$ [1]

(b) $4 - 80 + 20 \div 10 = -6$ [1]

12 Write 9×27 as a power of 3.

..... [2]

13 Work out $\sqrt{0.0025}$.

..... [1]



- 14 A school records the number of students who are late on each of 12 days.

17	1	23	14	18	8
8	12	10	5	22	19

Complete the stem-and-leaf diagram.

0	
1	
2	

key : 1 | 7 represents 17 students

[2]

- 15 The probability that Jai wins a game is 0.7 .

(a) Find the probability that he does not win a game.

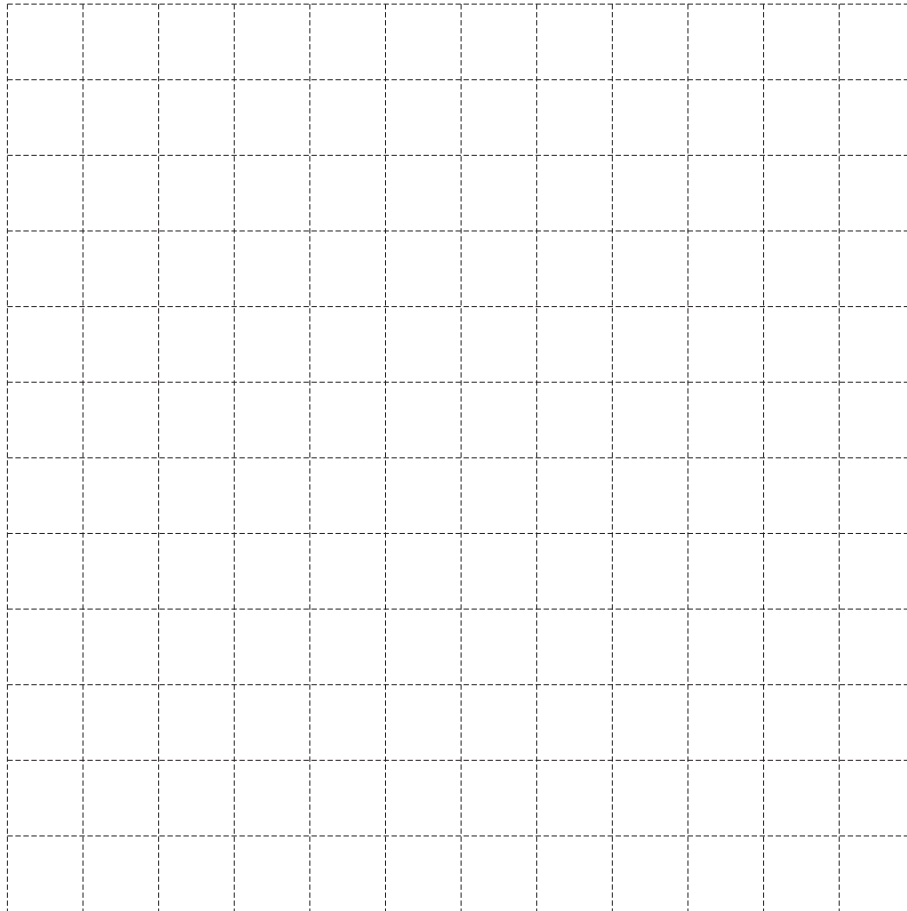
..... [1]

(b) Jai plays 50 games.

Work out the number of games he is expected to win.

..... [1]





A cube has volume 8 cm^3 .

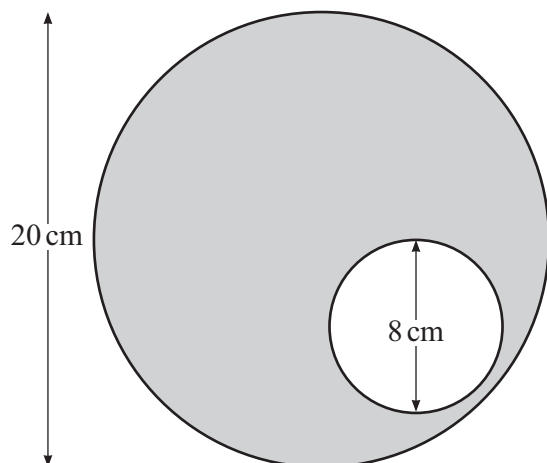
On the 1 cm^2 grid, draw a net for this cube.

[3]





17 The diagram shows two circles.



NOT TO SCALE

The small circle has diameter 8 cm.
The large circle has diameter 20 cm.

Work out the shaded area.
Give your answer in terms of π .

..... cm^2 [3]

18 Factorise.

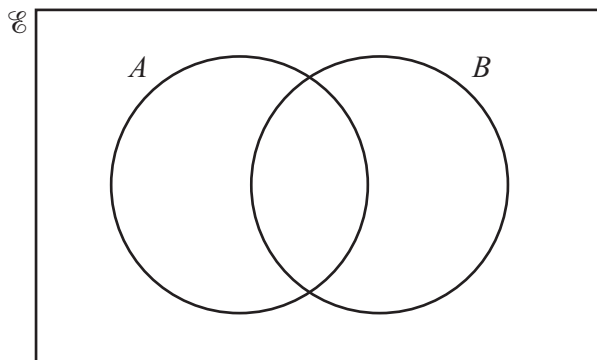
$$9x^3 - 6x$$

..... [2]





- 19 $\mathcal{C} = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12\}$
 $A = \{\text{multiples of } 3\}$
 $B = \{\text{multiples of } 4\}$



(a) Complete the Venn diagram. [2]

(b) Write down $n(A \cap B)$.

..... [1]

- 20 Solve the simultaneous equations.

$$-5x - 7y = 1$$

$$6x + 8y = -2$$

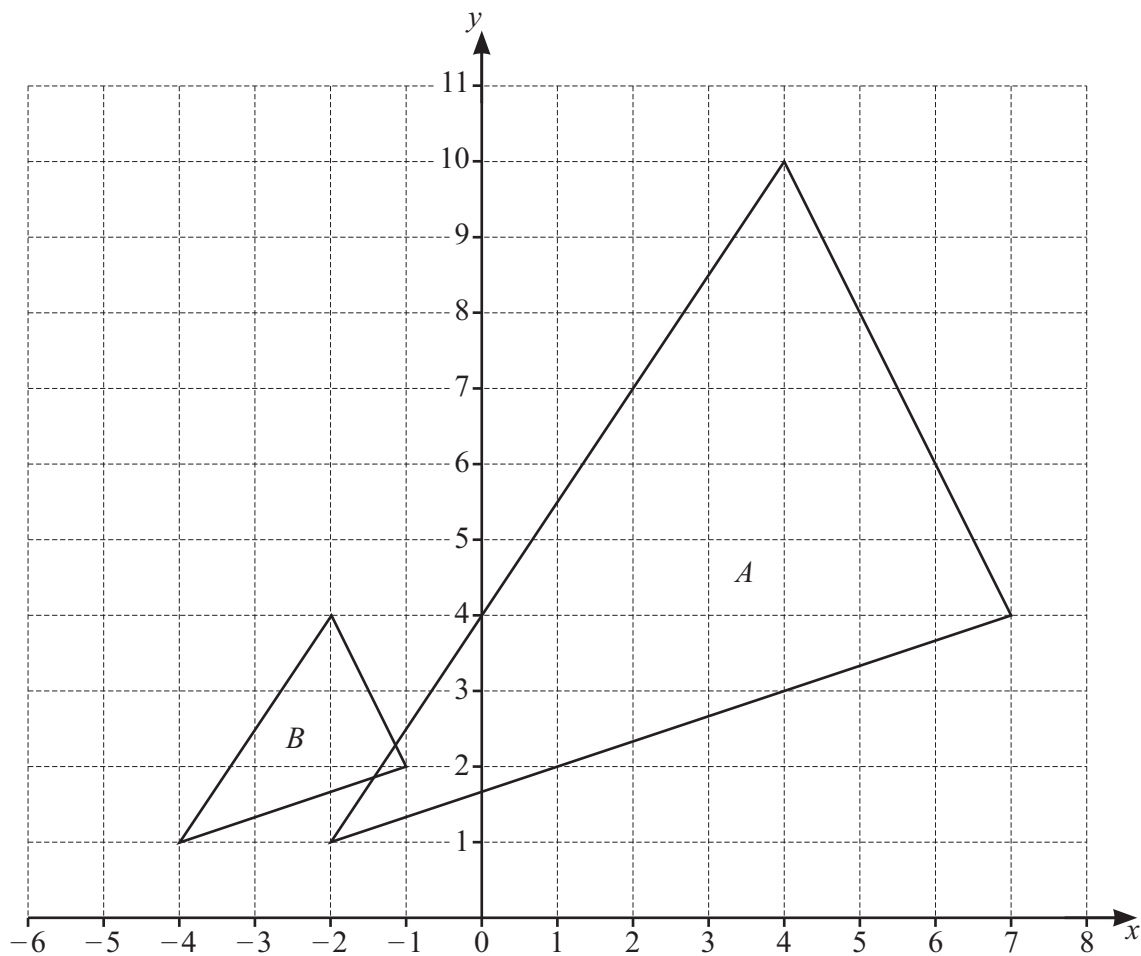
$$x = \dots\dots\dots$$

$$y = \dots\dots\dots$$

[4]



- 21 The diagram shows two triangles, A and B , on a 1 cm^2 grid.



- (a) Describe fully the **single** transformation that maps triangle A onto triangle B .

.....
 [3]

- (b) On the grid, draw the image of triangle B after a rotation 180° , centre $(-2, 4)$. [2]

- (c) Triangle A is reflected in the line $x = 7$.

Work out the coordinates of the vertices of triangle A , after this reflection.

(..... ,), (..... ,), (..... ,) [3]

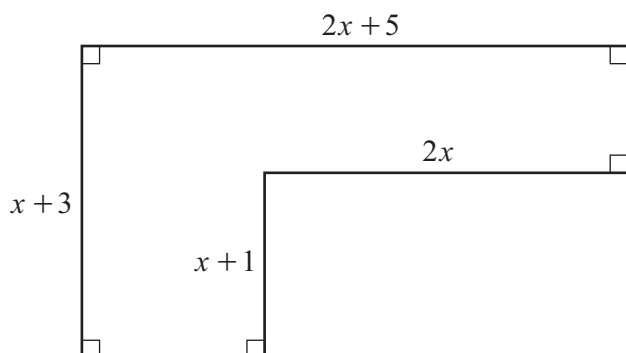


22 (a) Expand the brackets and simplify.

$$(2x + 5)(x + 3)$$

..... [2]

(b)



NOT TO SCALE

Find an expression for the area of this shape.
Give your answer in its simplest form.

..... [3]

- 23 The height, h metres, of a tree is 37.4 m, correct to the nearest 10 centimetres.

Complete this statement about the value of h .

$$\dots\dots\dots \leq h < \dots\dots\dots [2]$$

- 24 Complete these statements.
Give your answers in standard form.

(a)

$$2.5 \text{ km is the same as } \dots\dots\dots \text{ cm.} [2]$$

(b)

$$30 \text{ cm}^3 \text{ is the same as } \dots\dots\dots \text{ litres.} [2]$$

- 25 By writing each number in the calculation correct to 1 significant figure, work out an estimate for the value of

$$\frac{0.43 \times 22.8}{13.7}.$$

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



26 Work out $3\frac{3}{5} \times 2\frac{2}{9}$.

Give your answer in its simplest form.

..... [3]

- 27 (a) A teacher asks a student to make x the subject of the formula $y = \frac{x}{5} + 2$.
Their working is shown in the box below, but it is **not** correct.

$y = \frac{x}{5} + 2$	line A
$5y = x + 2$	line B
$5y - 2 = x$	line C
$x = 5y - 2$	line D

Complete this statement.

Line is **not** correct because

..... [1]

- (b) Make p the subject of the formula.

$$A = pt^2$$

$p =$ [1]





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