Write your name, centre number and candidate number in the boxes below.

Surname	Other names

Centre number | | | | | |

Candidate number | | | | |

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Constructions and nets

Time allowed: 30 minutes

Subject code **0580**

Mathematics

Questions from Paper 1, Paper 2, Paper 3 and Paper 4

You must have: a ruler marked in centimetres and millimetres, a protractor, compasses, a pen, an HB pencil and an eraser.
You may use a calculator.

Total marks

/ 24

Instructions

- Answer every question in the space provided on this paper.
- Write in black or dark blue ink. Pencil may be used for diagrams and graphs.
- Fill in your name, centre number and candidate number above.
- Show your working: a correct method can earn marks even if the answer is wrong.
- Unless a question says otherwise, give answers that are not exact to 3 significant figures, and angles in degrees to 1 decimal place.

Information

- This paper has 10 questions worth 24 marks in total.
- The marks for each question or part are shown in brackets, for example [3].

Advice

- Read every question through once before you write anything.
- Use the marks in brackets to judge how long to spend on each part.
- If you finish early, go back and check your working.

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Print at 100% (Actual size) so diagrams keep their real measurements.

1



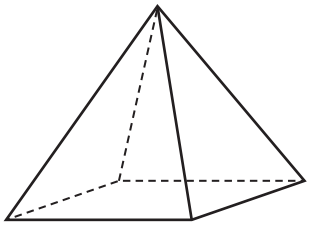
The diagram shows the net of a solid.

Write down the mathematical name of this solid.

..... [1]

3D shapes Click for more variations

2



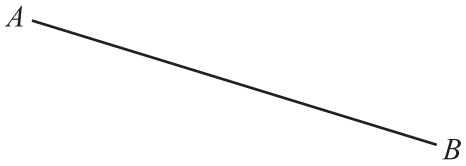
The diagram shows a square-based pyramid.

Complete this statement.

The pyramid has ..... edges and ..... vertices. [2]

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3



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(a) Measure the length of line AB in centimetres.

..... cm [1]

(b) Draw a line that is parallel to line AB. [1]

(a) Constructions and loci (b) Constructions and loci Click for more variations

4 Construct a triangle with sides of length 55 mm, 68 mm and 85 mm.

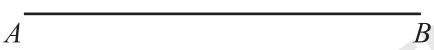
The 85 mm side has been drawn for you.

[2]

Constructions and loci Click for more variations

5 The line AB is one side of an equilateral triangle ABC.

Using a straight edge and compasses only, construct triangle ABC.



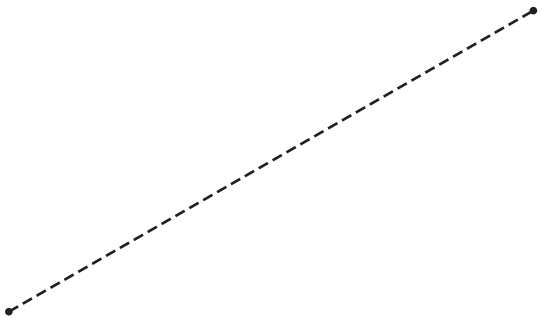
[2]

Constructions and loci Click for more variations

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6 A rhombus has side length 6.5 cm.
The rhombus can be constructed by drawing two triangles.

Using a ruler and compasses only, construct the rhombus.
Leave in your construction arcs.
One diagonal of the rhombus has been drawn for you.



[2]

Constructions and loci Click for more variations

7 AB is a straight line.



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(a) Measure the length of AB.

..... cm [1]

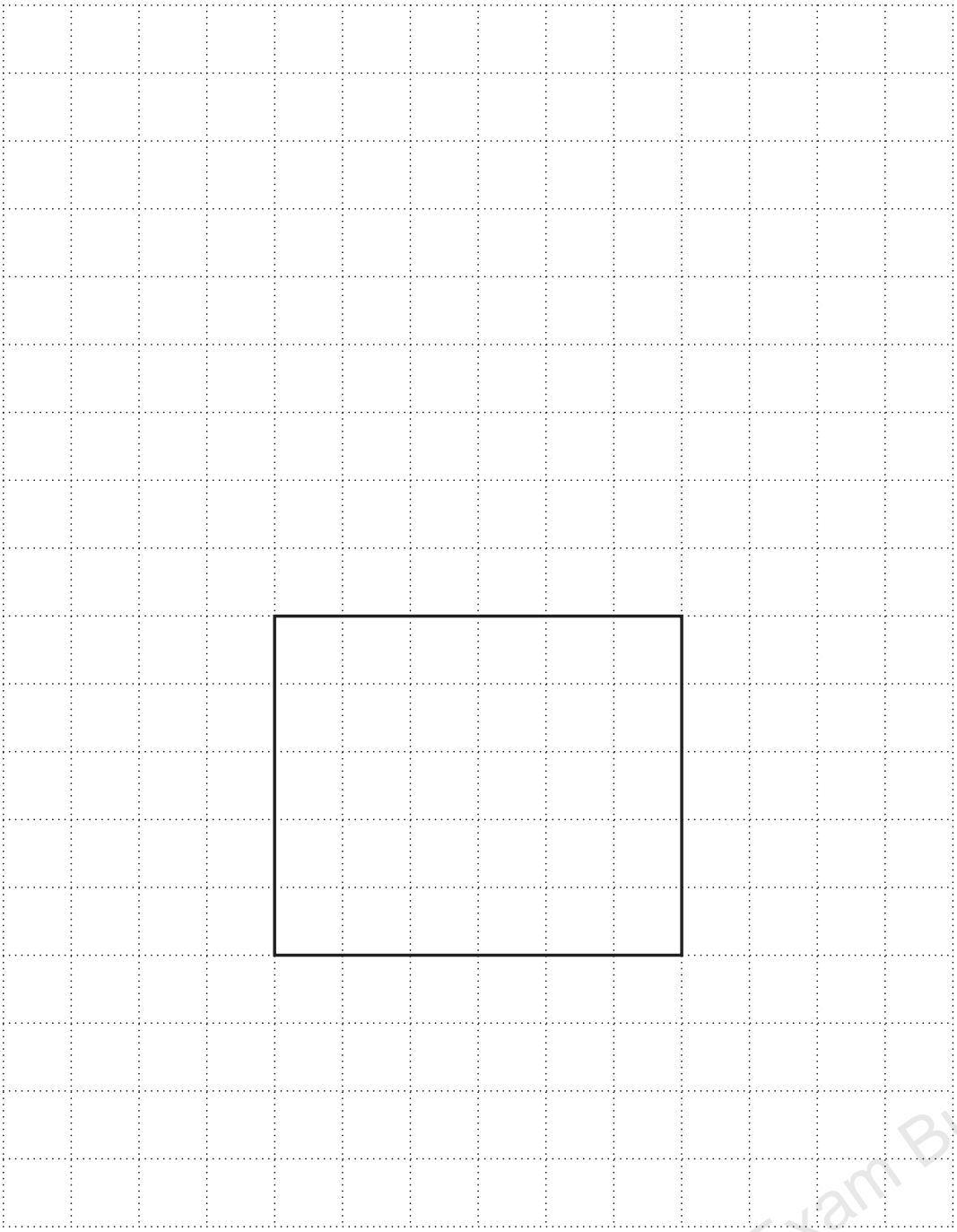
(b) Mark the midpoint of AB. [1]

(c) Draw a line perpendicular to AB. [1]

(a) Constructions and loci (b) Constructions and loci (c) Constructions and loci Click for more variations

8 A cuboid has length 6 cm, width 5 cm and height 3 cm.

On the 1 cm^2 grid, complete the net of the cuboid.
The base is drawn for you.

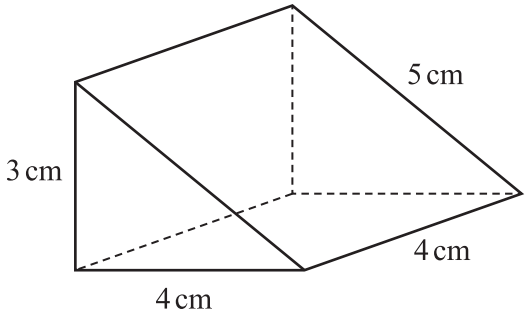


[3]

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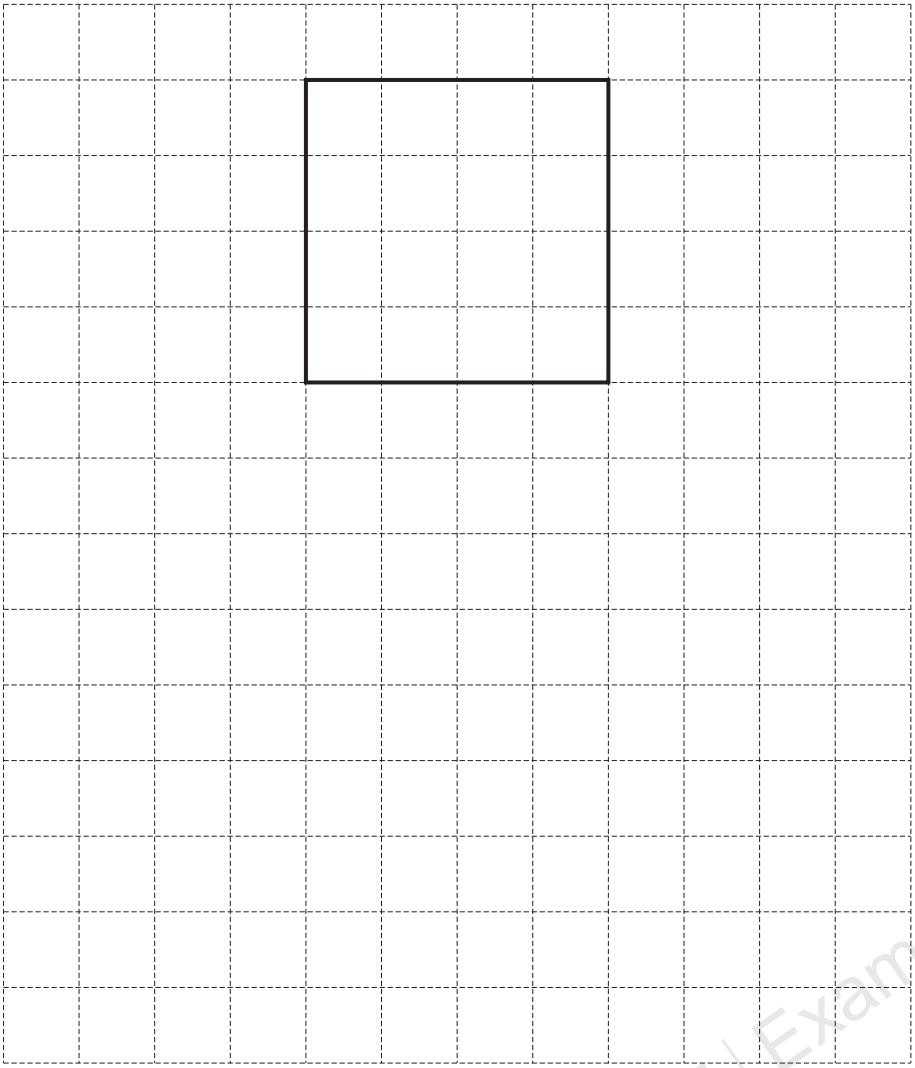
9



NOT TO SCALE

The diagram shows a right-angled triangular prism.

Complete the net of this prism on the 1 cm^2 grid.
One face has been drawn for you.

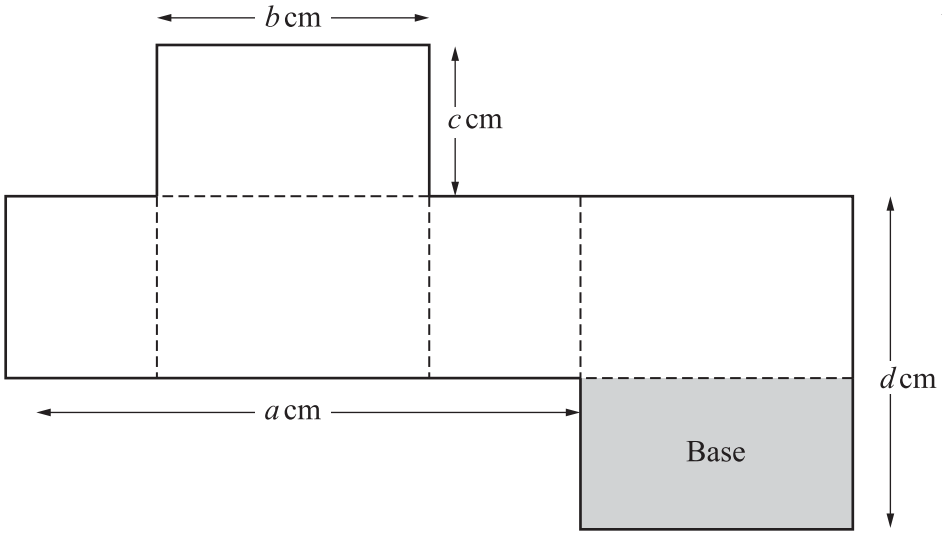


[3]

3D shapes Click for more variations

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10



NOT TO SCALE

The diagram shows the net of a cuboid with its base shaded.
The length of the cuboid is 10 cm, its width is 4 cm and its height is 5 cm.

Write down the values of each of a, b, c and d.

$a =$ ....., $b =$ ....., $c =$ ....., $d =$ ..... [4]

3D shapes Click for more variations

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