

Naming 2D shapes and 3D solids

Grade 1 | Foundation | 22 questions, 48 marks

GCSE Maths topic practice



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Name: _____ **Date:** _____ **Score:** _____ / 48

- 1** A triangle has three sides that are all the same length.

What is the name of this type of triangle?

(1 mark)

Answer _____

- 2** a. Write down the number of faces of a cube.

b. Write down the number of vertices of a cube.

(2 marks)

Answer _____

- 3** Write down the mathematical name of a polygon with exactly five sides.

(1 mark)

Answer _____

- 4** A 3D solid has exactly one square face and four triangular faces.

a. Write down the mathematical name of this solid.

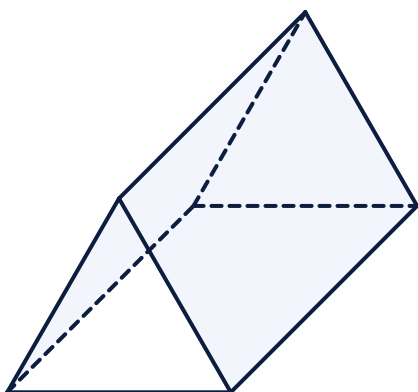
b. Write down the number of edges of this solid.

(2 marks)

Answer _____

5 Here is a triangular prism.

- Write down the number of faces of a triangular prism.
- Write down the number of edges of a triangular prism.



(2 marks)

Answer _____

6 Triangle P has sides of length 5 cm, 5 cm and 8 cm.

Triangle Q has sides of length 4 cm, 6 cm and 7 cm.

- What is the name of triangle P ?
- What is the name of triangle Q ?

(2 marks)

Answer _____

7 $ABCD$ is a rectangle. The corners A , B , C and D are in order going round the rectangle.

- Write down the name of a side that is parallel to AB .
- Write down the name of a side that is perpendicular to AB .

(2 marks)

Answer _____

8 A solid shape has one curved surface, one flat circular face and one vertex.

- a. What is the name of this solid?
- b. How many faces does a triangular prism have?

(2 marks)

Answer _____

9 a. A 3D solid has one curved surface, no edges and no vertices. Write down the mathematical name of this solid.

- b. A different 3D solid has two flat circular faces and one curved surface. Write down the mathematical name of this solid.

(2 marks)

Answer _____

10 a. A quadrilateral has exactly one pair of parallel sides. Write down the mathematical name of this quadrilateral.

- b. A different quadrilateral has two pairs of parallel sides. All four of its sides are equal in length but none of its angles are right angles. Write down the mathematical name of this quadrilateral.

(2 marks)

Answer _____

11

- a. A 3D solid has exactly one circular face and one vertex. Write down the mathematical name of this solid.
- b. In the space below, draw a sketch of a cuboid.

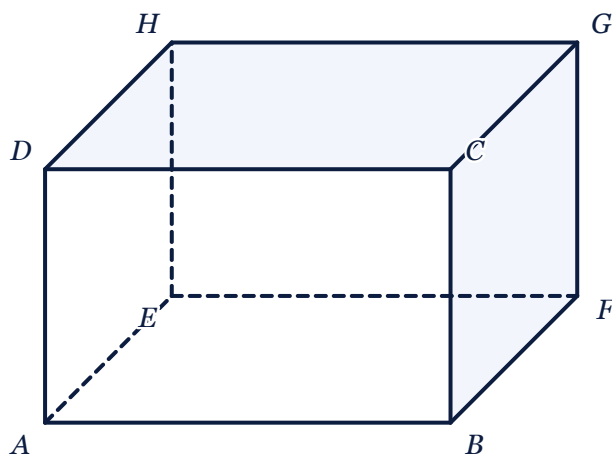
(2 marks)

Answer _____

12

The diagram shows a solid with corners labelled A to H .

- a. Write down the mathematical name of the solid.
- b. How many edges does the solid have?
- c. The front face is $ABCD$. Write down the corners of the face opposite it.



(3 marks)

Answer _____

13 In triangle PQR , angle $Q = 90^\circ$ and angle $P = \text{angle } R$.

- a. What type of triangle is PQR ?
- b. Work out the size of angle P .

(3 marks)

Answer _____

14 a. A quadrilateral has two pairs of equal adjacent sides and exactly one line of symmetry. Write down the mathematical name of this quadrilateral.

- b. A 3D solid has six faces. Every face is a square. Write down the mathematical name of this solid.

(2 marks)

Answer _____

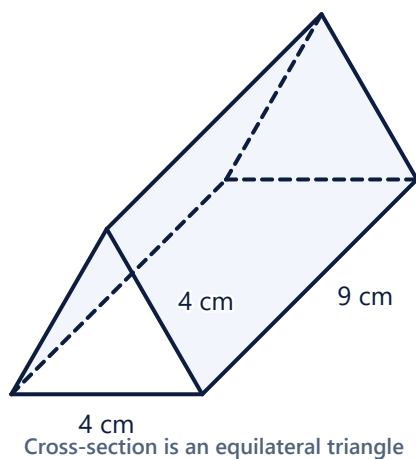
15 A prism has a cross-section that is a pentagon.

- a. Write down the number of faces of the prism.
- b. Write down the number of edges of the prism.
- c. Write down the number of vertices of the prism.

(3 marks)

Answer _____

- 16** A prism has a cross-section that is an equilateral triangle with sides of length 4 cm.
The length of the prism is 9 cm.
Work out the total length of all the edges of the prism.



(3 marks)

Answer _____

- 17** A prism has a cross-section that is a regular octagon with sides of length 3 cm.
The length of the prism is 10 cm.
- Write down the number of edges of the prism.
 - Work out the total length of all the edges of the prism.

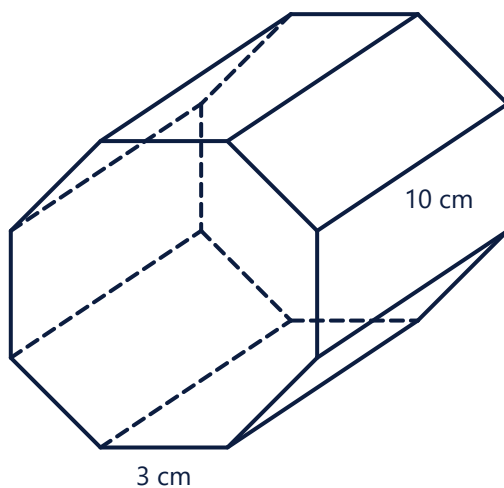


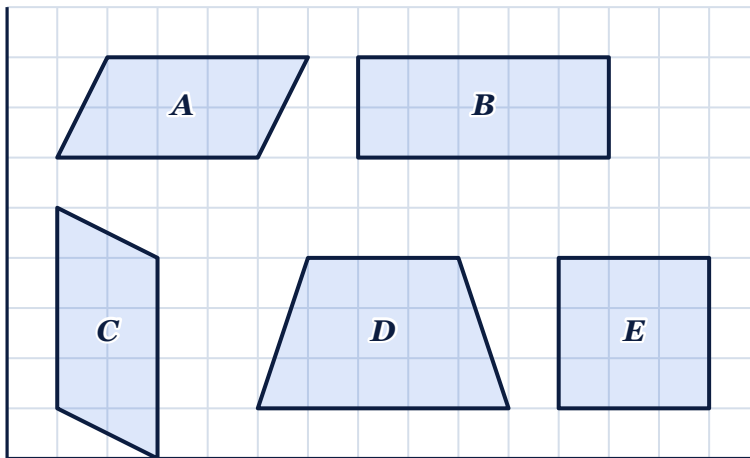
Diagram NOT accurately drawn

(3 marks)

Answer _____

18 The diagram shows five quadrilaterals, labelled A, B, C, D and E, drawn on a centimetre grid.

- Write down the letters of the pair of congruent quadrilaterals.
- Write down the mathematical name of quadrilateral A.



(2 marks)

Answer _____

- 19**
- Write down the mathematical name of a polygon with exactly eight sides.
 - A quadrilateral has four right angles. Its opposite sides are equal in length, but not all four sides are equal. Write down the mathematical name of this quadrilateral.
 - Write down the number of lines of symmetry of the quadrilateral in part (b).

(3 marks)

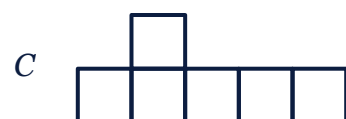
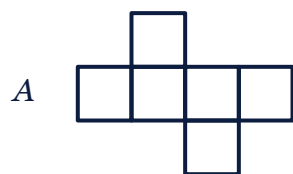
Answer _____

- 20** Amira says,
"Every quadrilateral with four equal sides must be a square."
Is Amira correct? You must give a reason for your answer.

(2 marks)

Answer _____

- 21 Each diagram is made of 6 squares. One of them is the net of a cube.
Write down the letter of the net that folds up to make a cube.

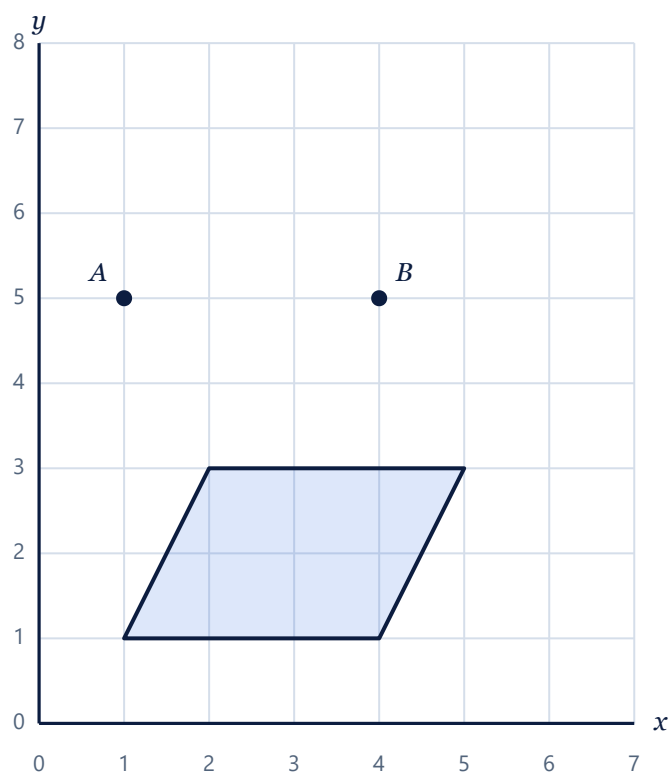


(1 mark)

Answer _____

22 The grid shows a quadrilateral and two points, A and B .

- Write down the name of the quadrilateral.
- On the grid, mark a point C so that triangle ABC has a right angle at B . Draw the triangle.



(3 marks)

Answer _____

End of questions | Total 48 marks