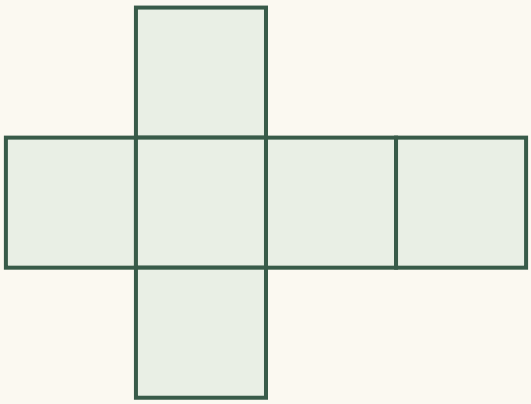
Nets and views of solids

6 questions | 13 marks

Equivalent correct methods earn the corresponding marks.

1. Name the solid formed by the net shown. [1 mark]



Six equal square faces

Six equal square faces fold to form a cube.

Answer: Cube

2. How many faces, edges and vertices does a cube have? [3 marks]

Count six square surfaces.

Four top, four bottom and four vertical edges total 12.

Four top and four bottom corners total 8.

Answer: 6 faces, 12 edges and 8 vertices

3. A cuboid is 7 cm by 4 cm by 2 cm. List the dimensions of the three pairs of opposite faces. [3 marks]

Each face uses two of the three edge lengths.

Opposite faces are equal rectangles.

Answer: Two 7×4 cm faces; two 7×2 cm faces; two 4×2 cm faces

4. A triangular prism is 10 cm long. Its triangular end has sides 5 cm, 5 cm and 6 cm. List the three rectangular face dimensions. [2 marks]

Each triangle side is one rectangle width.

All three rectangles extend the 10 cm prism length.

Answer: 10×5 cm, 10×5 cm and 10×6 cm

5. Six equal squares are joined in one straight row. Does counting six faces prove this is a cube net? Explain. [2 marks]

Faces must fold to cover six different sides without overlap.

A single straight strip cannot cover both the top and bottom while making the four side faces.

Answer: No. This arrangement does not close to form a cube.

6. Which representation best suits making a cardboard box: a front view or a net? Explain. [2 marks]

A net shows every face and where folds go.

A front view hides the other faces.

Answer: A net