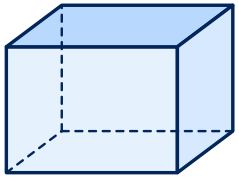
GCSE FOUNDATION · REVISION MAT 3

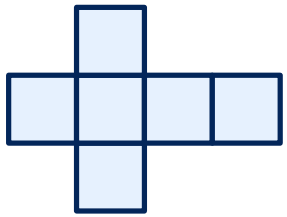
# Properties of 3D shapes

**1** Here is a cuboid.



Write down the number of faces, edges and vertices.

**2** Here is the net of a 3D shape.

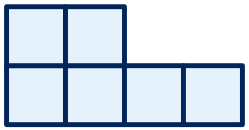


Name the 3D shape.

**3** A octagonal prism has 10 faces, 16 vertices and 24 edges.

Show that faces + vertices – edges = 2.

**4** Ella says this is the net of a cube.



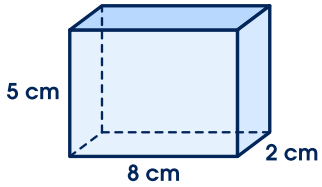
Explain why Ella is wrong.

**5** A prism has 12 edges.

(a) Name the prism.

(b) How many faces and vertices does it have?

**6** A cuboid is 8 cm by 5 cm by 2 cm.




Work out the total surface area of the cuboid.

**1** Faces **6**, edges **12**, vertices **8**

**2** **Cube**

**3** 10 + 16 − 24 = **2** ✓

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# Properties of 3D shapes

**4** Two squares on the same side next to each other would fold onto the same face.

**5** A prism has 3*n* edges, where *n* is the number of sides of its end face: *n* = 4.

(a) **Cuboid (square or rectangular prism)**

(b) Faces **6**, vertices **8**

**6** 2 × (8×5 + 8×2 + 5×2)

= 2 × 66 = **132 cm$^2$**