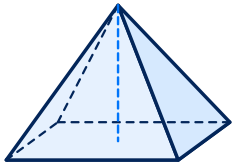
GCSE FOUNDATION · REVISION MAT 2

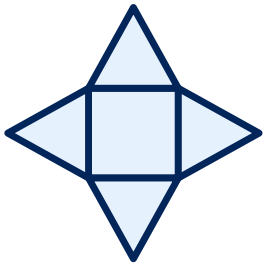
Properties of 3D shapes

1 Here is a square-based pyramid.



Write down the number of faces, edges and vertices.

2 Here is the net of a 3D shape.

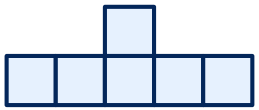


Name the 3D shape.

3 A hexagonal pyramid has 7 faces, 7 vertices and 12 edges.

Show that faces + vertices – edges = 2.

4 Ella says this is the net of a cube.



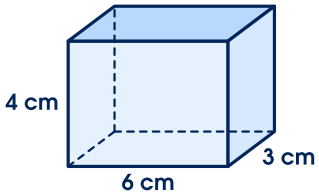
Explain why Ella is wrong.

5 A prism has 15 edges.

(a) Name the prism.

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

6 A cuboid is 6 cm by 4 cm by 3 cm.



Work out the total surface area of the cuboid.

ANSWERS · REVISION MAT 2

Properties of 3D shapes

1 Faces **5**, edges **8**, vertices **5**

2 **Square-based pyramid**

3 7 + 7 − 12 = **2** ✓

4 Five squares in a row would wrap round and overlap themselves.

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

(a) **Pentagonal prism**

(b) Faces **7**, vertices **10**

6 2 × (6×4 + 6×3 + 4×3)

= 2 × 54 = **108 cm^2**