## Year 5 3D shape challenges Problem solving and reasoning questions

Always true, sometimes true or false?

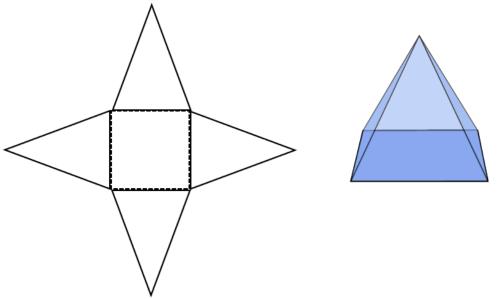
- A cube is a type of cuboid
- Pyramids have 5 faces
- Prisms have a cross-section that is always the same, so a cylinder is a prism
- Cubes and cuboids have the same number of vertices

How many edges has a...

- (a) Cuboid?
- (b) Square-based pyramid?
- (c) Cylinder?
- (d) Triangular prism?

## In-depth Investigation

This is the net for a square-based pyramid:



Can you visualise and draw any other different nets that fold to give the same pyramid?