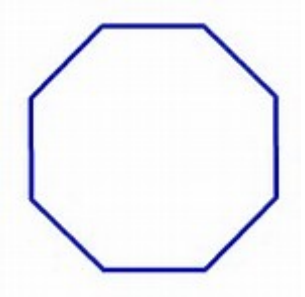
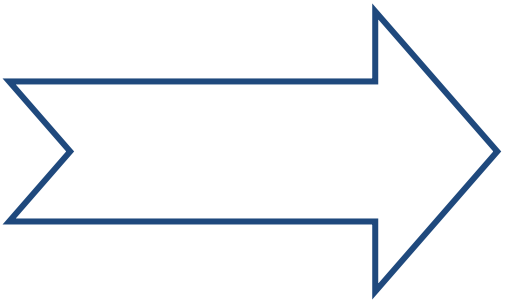
GOLYGONS

You know what a polygon is, a shape with straight sides.

In particular, you have learned about octagons, shapes with eight sides. When people think of an octagon they usually mean a regular octagon:



Not every octagon has equal sides and equal angles. Here is an octagon that certainly is not regular. Some of its interior angles are acute, others reflex:



Action - Can you draw an octagon that has the following:

- **Eight** sides (obviously)
- The **first** side is **1 cm** long, the **second** side is **2 cm** long, the **third 3 cm**, and so on. The **eighth** side is **8 cm** long.
- All the angles are **right angles.** Every side is at right angles to its neighbours.

The shape you have just drawn is called a basic **golygon**. It turns out that every **golygon** must have a **multiple of eight** sides.

Action – can you draw a golygon with **16 sides**? What about a **24-sided** golygon? What about….?