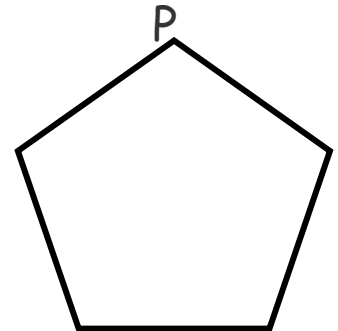


# INTERIOR ANGLES of a POLYGON

**Key fact : The sum of the angles in a triangle =  $180^\circ$**

**1.** A polygon with 5 sides is called a .....

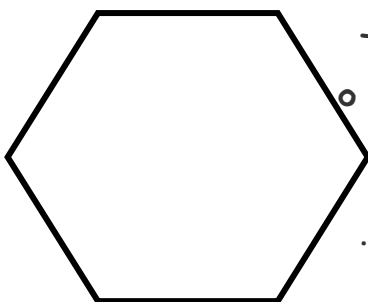
Divide this polygon into **3 triangles**  
(start at the point marked P each time)



Total of the angles **inside** = 3 triangles  $\times 180^\circ = \dots\dots\dots^\circ$

Each **interior angle** in this polygon will be  $\dots\dots\dots^\circ$

**2.** Divide the hexagon below into 4 triangles. Use this to find the **TOTAL** of the interior angles for this hexagon.



Total of the angles **inside** = 4 triangles  $\times 180^\circ =$

Each **interior angle** in this polygon will be  $\dots\dots\dots^\circ$

**3.** Work out each interior angle of a regular octagon (8 sides).

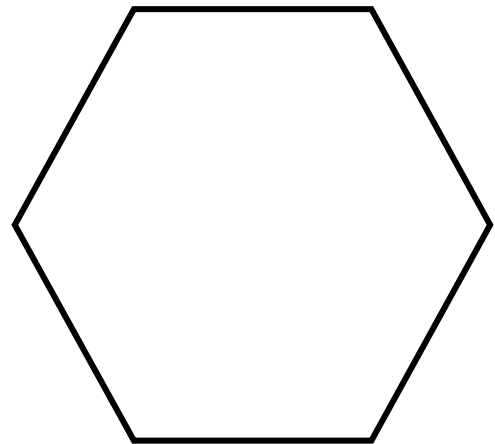
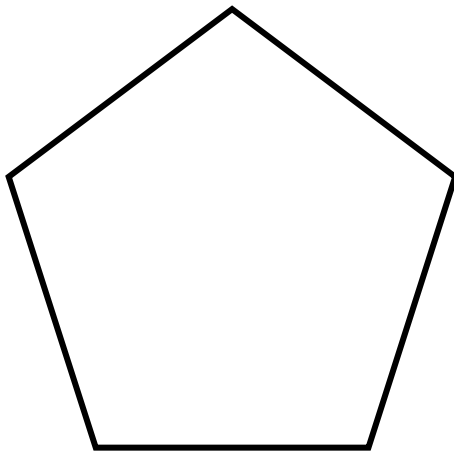
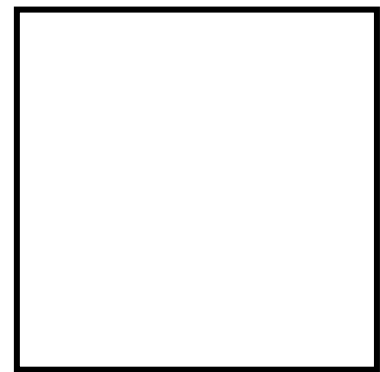
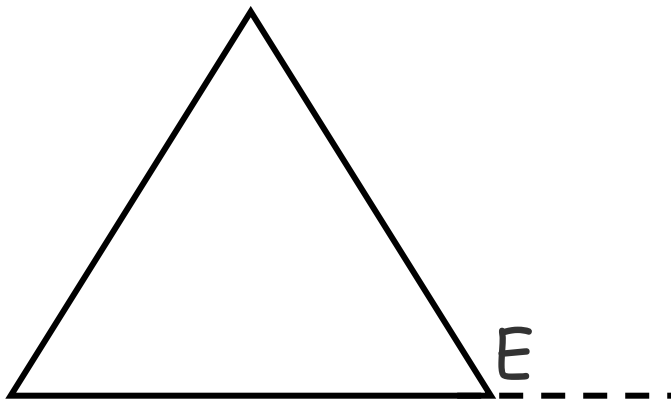
Help: 6 triangles  $\times 180^\circ = \dots\dots\dots^\circ$  (total angle sum).

Each interior angle will be  $\dots\dots\dots^\circ$

# EXTERIOR ANGLES

**Key fact: Exterior angles on any polygon always add up to  $360^\circ$**

For each of the shapes below, **draw and label ONE** exterior angle using the letter E. The first has been done for you.



For each polygon, write down the value of E (the size of the exterior angle for each shape). Use the table below to record your answers.

Triangle	$E = 360^\circ \div 3$	$E = 120^\circ$
Square		$E =$
Pentagon		$E =$
Hexagon		$E =$