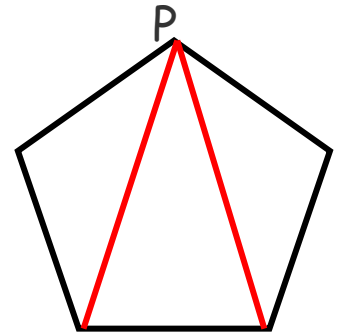


# INTERIOR ANGLES ANSWERS

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

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

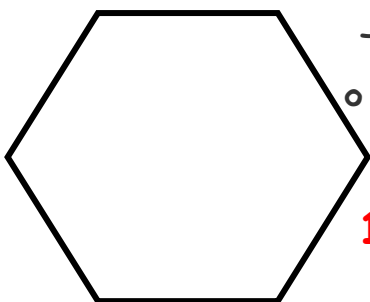
Divide this polygon into **3 triangles**  
(start at the point marked P each time)



Total of the angles **inside** = 3 triangles  $\times 180^\circ =$   **$540^\circ$**

Each **interior angle** in this polygon will be  **$108^\circ$**

**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  **$120^\circ$**

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

Help: 6 triangles  $\times 180^\circ =$   **$1080^\circ$**  (total angle sum).

Each interior angle will be  **$135^\circ$**

# 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).

Triangle	$E = 360^\circ \div 3$	$E = 120^\circ$
Square	$E = 360^\circ \div 4$	$E = 90^\circ$
Pentagon	$E = 360^\circ \div 5$	$E = 72^\circ$
Hexagon	$E = 360^\circ \div 6$	$E = 60^\circ$