

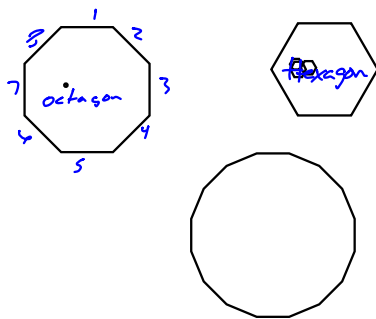
9.6 Polygons

- A closed plane figure with sides (segments) that connect at endpoints called vertices

Vertex - point where sides meet

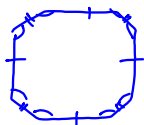
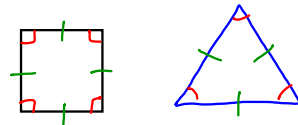
Naming Polygons By sides (# of sides)

- 3 Triangle
- 4 Quadrilateral
- 5 Pentagons number-gon
- 6 Hexagons
- 8 Octagons

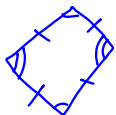


Regular

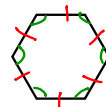
- All sides are equal
- All angles are the same measure



Not Regular
All sides are not equal

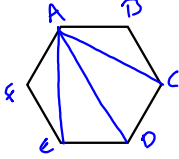


Not Regular
All angles are not equal
in measure

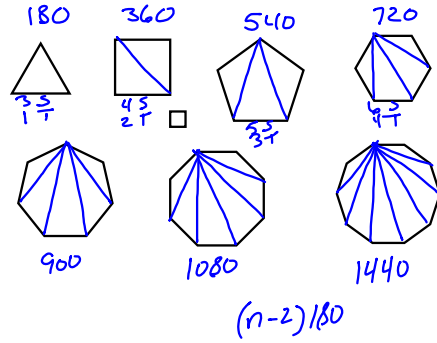


Diagonals

↳ A segment that connects a vertex to another vertex that it is not already connected to.

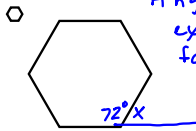


3 diagonals
4 triangles



Exterior Angle

Angle on the exterior that forms a straight angle



$$72 + x = 180^\circ$$

$$\begin{array}{r} 72 + x = 180^\circ \\ -72 \\ \hline x = 108^\circ \end{array}$$

P487-488

1-33 all