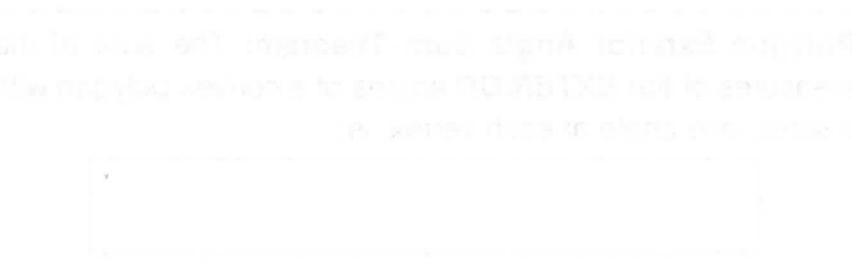


EXTERIOR ANGLES OF POLYGONS

EXTERIOR ANGLE:

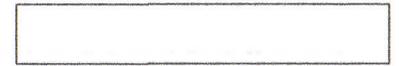
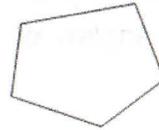


INTERIOR ANGLES OF POLYGONS

POLYGON:

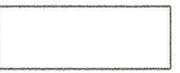
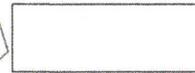
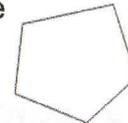
Polygons are named by their _____ in a _____ or _____ rotation.

The segments that connect the nonconsecutive vertices of a polygon are called _____.



Polygons can be

CONVEX or
CONCAVE.



Polygons are named according to the number of _____.

A 3-sided polygon is called a _____.

A 4-sided polygon is called a _____.

A 5-sided polygon is called a _____.

A 6-sided polygon is called a _____.

A 7-sided polygon is called a _____.

An 8-sided polygon is called a _____.

A 9-sided polygon is called a _____.

A 10-sided polygon is called a _____.

An 11-sided polygon is called a _____.

A 12-sided polygon is called a _____.

An n-sided polygon is called a _____.

INTERIOR ANGLES OF POLYGONS

An interior angle of a polygon is an angle on the _____ of a polygon formed by a pair of _____ sides.

Polygon Interior Angle Sum Theorem: The sum of the measures of the *INTERIOR* angles of a convex polygon with n sides is:

EXAMPLE 1: Find the sum of the interior angles of a decagon.

REGULAR POLYGON:

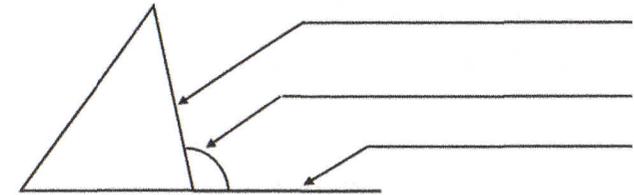
An *IRREGULAR* polygon is a polygon that is not _____ or _____.

Corollary: The measure of each interior angle of a regular polygon with n sides is:

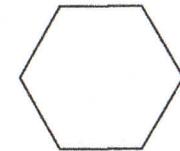
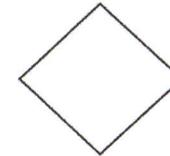
EXAMPLE 2: Find the measure of *each* of the interior angles of a regular dodecagon.

EXTERIOR ANGLES OF POLYGONS

EXTERIOR ANGLE:



EXAMPLE 1: For each of the following polygons, draw the exterior angles.



Polygon Exterior Angle Sum Theorem: The sum of the measures of the *EXTERIOR* angles of a convex polygon with n sides, one angle at each vertex, is:

EXAMPLE 2: Find the sum of the exterior angles of a octagon.

Corollary: The measure of each exterior angle of a regular polygon with n sides is:

EXAMPLE 3: Find the measure of *each* of the exterior angles of a regular undecagon.