MasterMath

GEOMETRY

Angle of Polygons

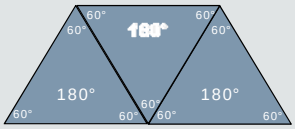
[redacted]

Polygon: A polygon is a closed plane figure made up of three or more line segments that intersect only at their endpoints.

A polygon is *convex* if every line segment connecting any two vertices lies entirely inside the polygon.

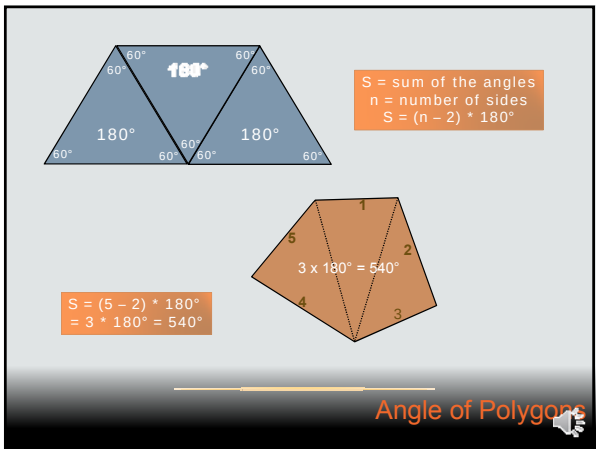
A polygon is *concave* if at least one line segment connecting any two vertices lies outside the polygon.

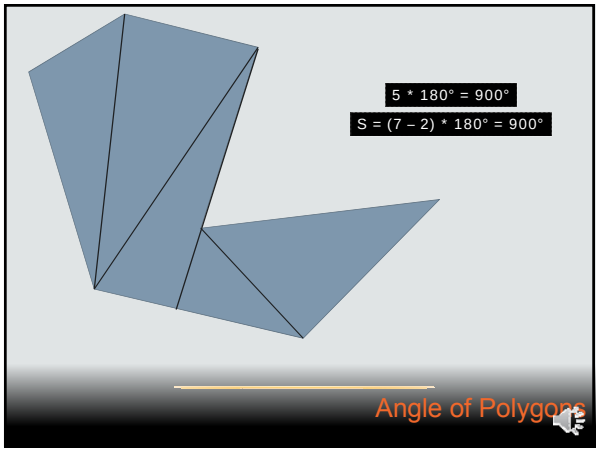
Angle of Polygons

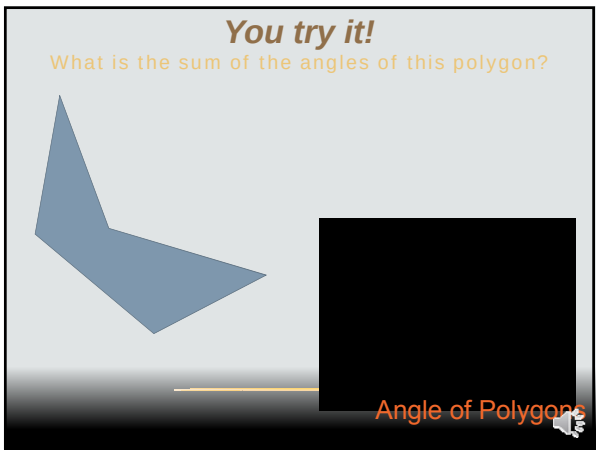


Regular Polygon: all the sides are equal (congruent) and all the angles are congruent

Angle of Polygons

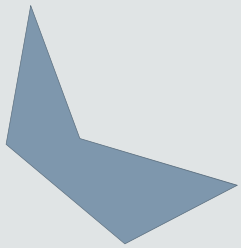

60°
60°
60°
60°
180°
180°
60°
60°
60°
60°
60°
60°
S = sum of the angles
n = number of sides
S = (n – 2) * 180°
1
2
3
4
5
3 x 180° = 540°
S = (5 – 2) * 180°
= 3 * 180° = 540°
Angle of Polygons


5 * 180° = 900°
S = (7 – 2) * 180° = 900°
Angle of Polygons


You try it!
What is the sum of the angles of this polygon?
Angle of Polygons

You try it!

What is the sum of the angles of this polygon?

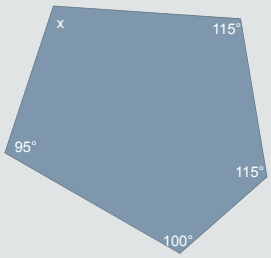


$S = (n - 2) * 180°$
$= (5 - 2) * 180°$
$= 3 * 180° = 540°$

Angle of Polygons

You try it!

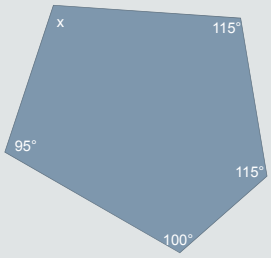
Find x



Angle of Polygons

You try it!

Find x



$S = (5 - 2) * 180° = 540°$

540
-95
-100
-115
-115
115°

Angle of Polygons

You try it!

How many degrees are in this polygon?

Angle of Polygons

You try it!

How many degrees are in this polygon?

S = (10 – 2)* 180° = 8 * 180° = 1,440°

Angle of Polygons

You try it!

Now, try it on your own. Go to
www.MasterMath.info
download
Angle of Polygons
from the Worksheets Page, and test your skill. Then see how much you understand by taking the Subject Quiz.

Angle of Polygons