INTERIOR ANGLE SUM

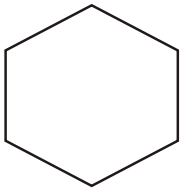
1) Because we know that all angles of a trianlge add up to equal 180º, we can find out what the sum of all of the interior angles will equal of different polygons.
A) Find out how many triangles you have inside the given polygon.
B) Then multiply 180 by the number of triangle you found.

2) You can also use a simple equation to find out the total degree sum of the interior angles of a polygon.

A) (Number of sides - 2) x (180) = total degree sum of interior angles.

Example:

What is the total degree sum of all of the interior angles of this hexagon.

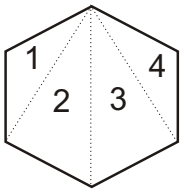


(Number of sides - 2) x (180) = total degree sum of interior angles.

(6-2) x (180) = total degree sum of interior angles.

(4) x (180) = 720º

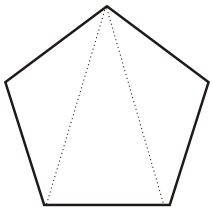
The reason why this rule works is because of the number of triangles you can get out of a given polygon.



Using one point, draw a line to all other possible points to see how many triangle you can get out of a given polygon.

There are 180º in a triangle and we formed 4 triangles inside the hexagon above.
There are always two less triangles than the number of sides of the given polygon.

Directions: Find the interior sum of the angles of all of the given polygons.
Show all of your work using the equation for interior angle sums. Number one was completed for you to show an example.

1) 

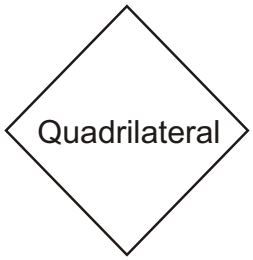
(# of sides - 2) x (180) = total degrees
(5-2) x (180) = total degrees
3 x 180 = total degrees
540º = total degrees of pentagon

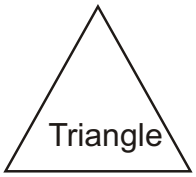
2) 

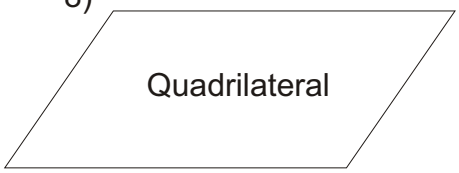
3) 

4) 

5) 

6) 

7) 

8) 

9) 

10)