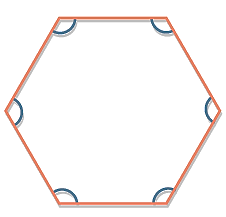
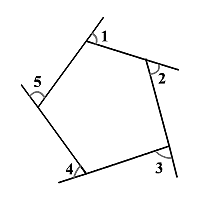
Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Ms. Liefland  **Interior & Exterior Angles Quiz Review** 2/21/2013

* Polygons (shapes with straight lines) have the same number as angles and sides
* Interior and Exterior angles are supplementary because they are next to each other on a straight line
* For example, a decagon has ten sides, ten (interior) angles and ten exterior angles.
* Any “n” in the formula is referring to the number of angles (same as the number of sides)

**Interior Angles (INSIDE)**

* The formula for finding the **SUM** of **interior** angles is: (what they all add up to)
* The formula for finding how big **ONE** **interior** angle in a regular polygon is:

**Exterior Angles (OUTSIDE) – made by EXTENDING any line of the polygon**

* No matter how many sides/angles there are, all of the **exterior** angles add up to \_\_\_\_\_\_
* The formula for finding how big **ONE** **exterior** angle in a regular polygon is:

1. Each exterior angle in the regular pentagon above has a measure of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ degrees.
2. Each exterior angle in a regular polygon with 45 sides has a measure of\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ degrees.
3. Each interior angle in a regular polygon with 45 sides has a measure of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ degrees.
4. Check to make sure that your answers for #2 and #3 add up to 180.
5. Mark the five interior angles in the regular pentagon above.
6. Exterior angles and interior angles are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ meaning that they add up to 180, because they are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (relationship) .
7. All of the exterior angles in an octagon add up to\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ degrees.
8. One exterior angle in a regular octagon measures \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ degrees.
9. All of the interior angles in an octagon add up to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ degrees.
10. One interior angle in a regular octagon measures \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ degrees.
11. Check to make sure that your answers for #8 and #10 add up to 180.
12. All of the interior angles in a polygon add up to 1620. The polygon has \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ sides.
13. True/False: The polygon above must be regular.
14. One exterior angle in a regular polygon measures 45 degrees. The polygon has \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ sides.
15. One interior angle in a regular polygon measures 162 degrees. The polygon has \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ sides.
16. All of the interior angles in a polygon add up to 900. The polygon has \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ sides.
17. One interior angle in a polygon measures 150 degrees. The polygon has \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ sides.
18. True/False: Regular polygons are both equilateral (all sides the same) and equiangular (all angles the same).