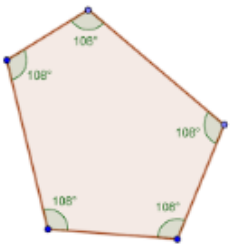
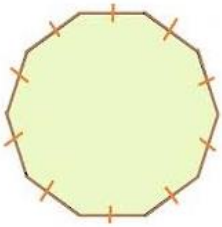
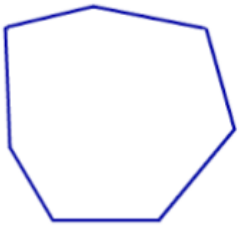
Name_____ Geometry 6-1 Worksheet

Name each polygon by the number of sides and classify each polygon as equiangular, equilateral, regular or irregular.

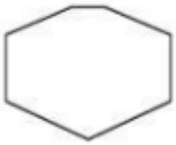
1. 


2. 

3. 

4. 

Find the sum of the interior angle measures of each polygon.

5. 

6. 35-gon

7. 14-gon

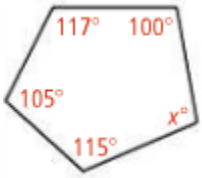
Find the measure of one interior angle in each regular polygon.

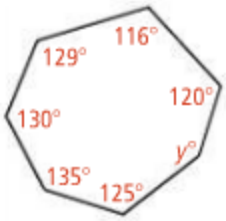
8. octagon

9. 26-gon

Find the missing angle measures.

10. 


11. 


12. 


Find the measure of an exterior angle of each regular polygon.

13. pentagon

14. 36-gon

The sum of the interior angle measures of a polygon with *n* sides is given. Find *n*.

15. 1080°

16. 1980°

The measure of an exterior angle of a regular polygon is given. Find the measure of an interior angle. Then find the Number of sides.

17. 72°

18. 36°

Standardized Test Prep:

19. The car at each vertex of a Ferris wheel holds a maximum of five people. The sum of the interior angle measures of the Ferris wheel is 7740. What is the maximum number of people the Ferris wheel can hold?

20. $\triangle ABC \cong \triangle DEF$. If $m\angle A = 3x + 4$, $m\angle C = 2x$, and $m\angle E = 4x + 5$, what is $m\angle B$?