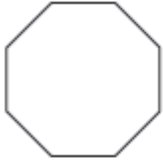


Math 2 Unit 5 Worksheet 1
Polygon Angle-Sum Theorems

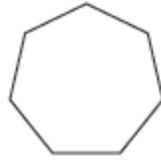
Name: _____
 Date: _____ Per: _____

[1-3] Find the sum of the angle measures of each polygon.

1.



2.



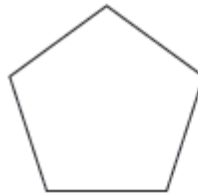
3. 12-gon

[4-6] Find the measure of one angle in each regular polygon. Round to the nearest tenth if necessary.

4.



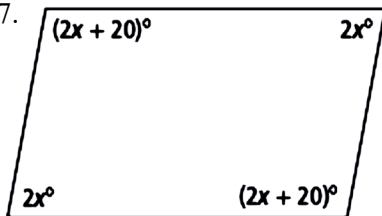
5.



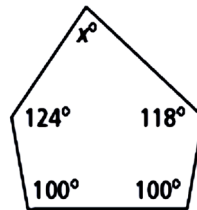
6. regular 15-gon

[7-9] Find the missing angle measures.

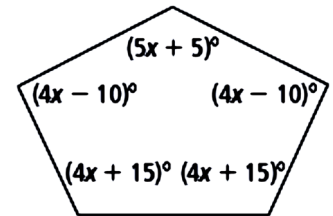
7.



8.



9.



[10-12] Find the measure of an EXTERIOR angle of each REGULAR polygon. Round to the nearest tenth if necessary.

10. Decagon

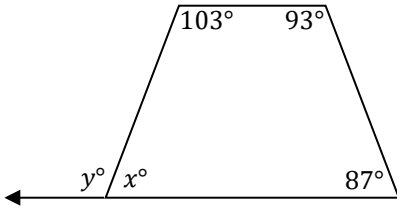
11. 16-gon

12. hexagon

[13-15] Find the value of each variable.

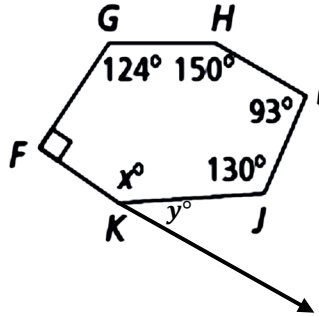
13. $x =$ _____

$y =$ _____



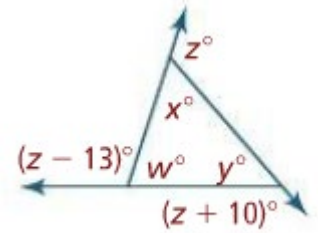
14. $x =$ _____

$y =$ _____



15. $w =$ _____ $y =$ _____

$x =$ _____ $z =$ _____



[16-18] 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.

16. 120°

17. 18°

18. 12°

Interior Angle: _____

Interior Angle: _____

Interior Angle: _____

Number of Sides: _____

Number of Sides: _____

Number of Sides: _____

19. A regular polygon has an interior angle with a measure of 150° . How many sides does the polygon have?

20. A regular polygon has an interior angle with a measure of 175° . How many sides does the polygon have?

21. Find the value of x . Drawing is not to scale.

