

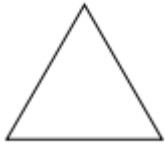
Name: \_\_\_\_\_

Block: \_\_\_\_\_

## Polygons

Name each regular polygon. Find the measure of the indicated angles.

1. Name: \_\_\_\_\_



Sum of Interior  $\angle$ 's: \_\_\_\_\_

One Interior  $\angle$ 's: \_\_\_\_\_

Sum of Exterior  $\angle$ 's: \_\_\_\_\_

One Exterior  $\angle$ 's: \_\_\_\_\_

2. Name: \_\_\_\_\_



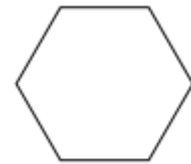
Sum of Interior  $\angle$ 's: \_\_\_\_\_

One Interior  $\angle$ 's: \_\_\_\_\_

Sum of Exterior  $\angle$ 's: \_\_\_\_\_

One Exterior  $\angle$ 's: \_\_\_\_\_

3. Name: \_\_\_\_\_



Sum of Interior  $\angle$ 's: \_\_\_\_\_

One Interior  $\angle$ 's: \_\_\_\_\_

Sum of Exterior  $\angle$ 's: \_\_\_\_\_

One Exterior  $\angle$ 's: \_\_\_\_\_

4. Name: \_\_\_\_\_



Sum of Interior  $\angle$ 's: \_\_\_\_\_

One Interior  $\angle$ 's: \_\_\_\_\_

Sum of Exterior  $\angle$ 's: \_\_\_\_\_

One Exterior  $\angle$ 's: \_\_\_\_\_

5. Dodecagon (12-sided)

Sum of Interior  $\angle$ 's: \_\_\_\_\_

One Interior  $\angle$ 's: \_\_\_\_\_

Sum of Exterior  $\angle$ 's: \_\_\_\_\_

One Exterior  $\angle$ 's: \_\_\_\_\_

6. N-Gon

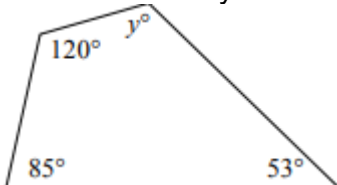
Sum of Interior  $\angle$ 's: \_\_\_\_\_

One Interior  $\angle$ 's: \_\_\_\_\_

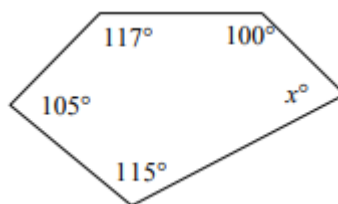
Sum of Exterior  $\angle$ 's: \_\_\_\_\_

One Exterior  $\angle$ 's: \_\_\_\_\_

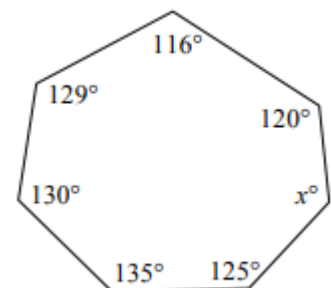
7. Find the value of  $y$ .



8. Find the value of  $x$ .



9. Find the value of  $x$ .

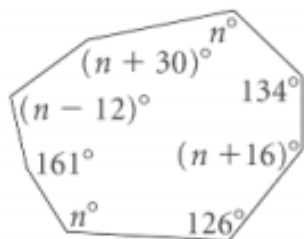


10. If the sum of the interior angles of a regular polygon is  $900^\circ$ , find the number of sides.

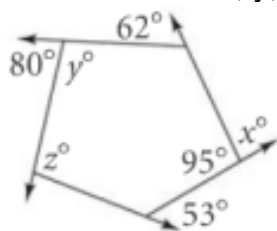
11. If the measure of one interior angle of a regular polygon is  $144^\circ$ , find the number of sides.

12. If the measure of one interior angle of a regular polygon is  $160^\circ$ , find the number of sides.

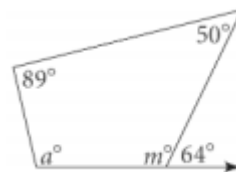
13. Find the value of  $n$ .



14. Find the values of  $x$ ,  $y$ , and  $z$ .

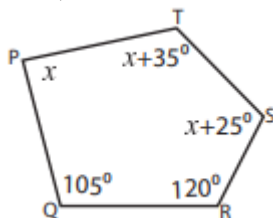


15. Find the values of  $a$  and  $m$ .



16. If the measure of one exterior angle is  $18^\circ$ , find the number of sides.

17. Find the value of  $x$  and  $m\angle P, m\angle T, m\angle S$ .



18. If the measure of one exterior angle is  $45^\circ$ , find the number of sides.

## Polygons



1. Determine the sum of the interior angles of the following:

A) Octagon

B) Dodecagon

C) Icosagon

D) A polygon with n-sides





2. What would be the measure of a single interior angle if each were a regular polygon?

A) Regular Octagon

B) Regular Dodecagon

C) Regular Icosagon

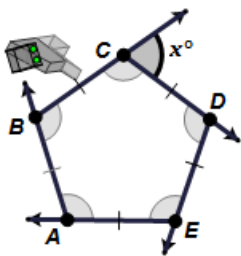
D) A polygon with n-sides



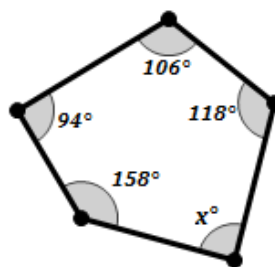


Find the value of  $x$  in each diagram below.

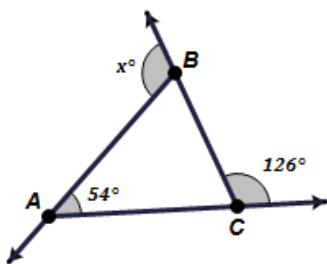
3.



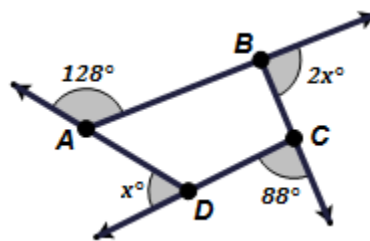
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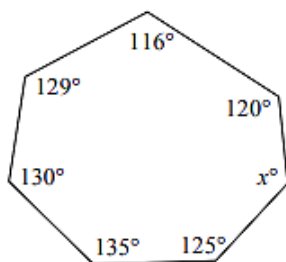
5.



6.



7.



8.

