

7.1 Angles of Polygons CYU

Use when you get it right all by yourself

**S** Use when you did it all by yourself, but made a silly mistake

**H** Use when you could do it alone with a little help from teacher or peer

**G** Use when you completed the problem in a group

**X** Use when a question was attempted but wrong (get help)

**N** Use when a question was not even attempted

CONCEPTS	BASIC	INTERMEDIATE	ADVANCED
Interior sum of polygons	1 - 4	5 - 8	9 - 14
Classifying polygons based on sides	5 - 8		
Exterior angles of polygons	15 - 16		
Each interior angle			

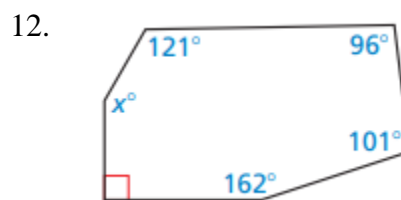
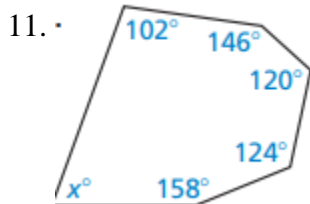
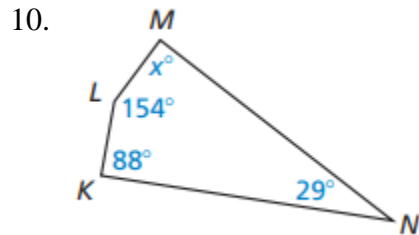
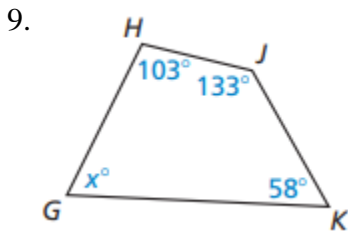
Find the sum of the measures of the interior angles of the indicated convex polygon.

1. nonagon                      2. 14-gon                      3. 16-gon                      4. 20-gon

The sum of the measures of the interior angles of a convex polygon is given. Classify the polygon by the number of sides.

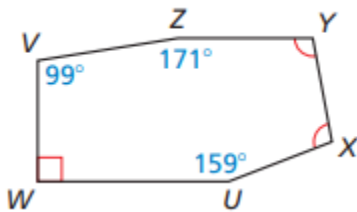
5.  $720^\circ$                       6.  $1080^\circ$                       7.  $2520^\circ$                       8.  $3240^\circ$

Find the value of  $x$ .

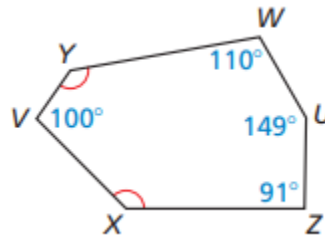


Find the measures of  $\angle X$  and  $\angle Y$ .

13.

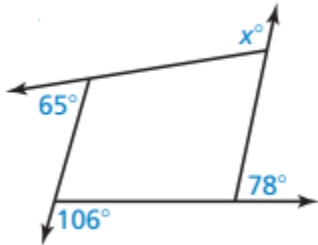


14.

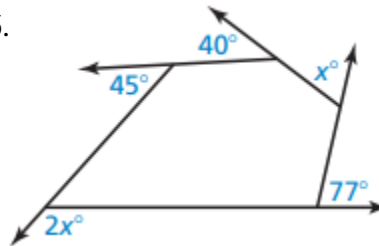


Find the value of  $x$ .

15.



16.



Find the measure of each interior angle and each exterior angle of the indicated regular polygon.

17. pentagon

18. 18 – gon

19. 45-gon

20. **MATHEMATICAL CONNECTIONS** In an equilateral hexagon, four of the exterior angles each have a measure of  $x^\circ$ . The other two exterior angles each have a measure of twice the sum of  $x$  and 48. Find the measure of each exterior angle.

**CYU Reflection:** *How far can you go: basic, intermediate, or advanced?*

**Rate your mastery level!**

How confident are you with the skills this CYU covered? Circle the

1	2	3	4	5	6	7	8
Basic		Intermediate			Advanced		Solved ALL!

