

Name _____

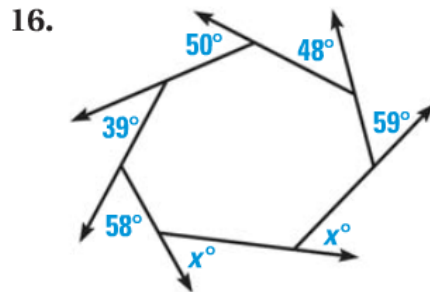
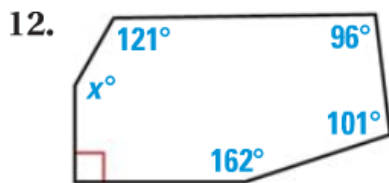
INTERIOR ANGLE SUMS Find the sum of the measures of the interior angles of the indicated convex polygon.

4. 14-gon

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

8. 720°

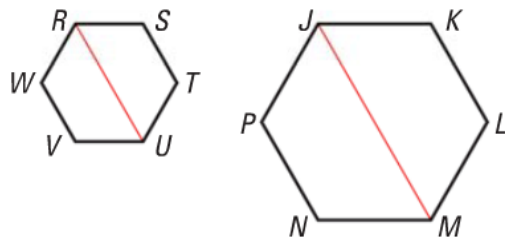
xy ALGEBRA Find the value of x .



REGULAR POLYGONS Find the measures of an interior angle and an exterior angle of the indicated regular polygon.

19. Regular pentagon

22. **DIAGONALS OF SIMILAR FIGURES**
Hexagons $RSTUVW$ and $JKLMNP$ are similar. \overline{RU} and \overline{JM} are diagonals. Given $ST = 6$, $KL = 10$, and $RU = 12$, find JM .



REGULAR POLYGONS Find the value of n for each regular n -gon described.

24. Each interior angle of the regular n -gon has a measure of 156° .

26. **POSSIBLE POLYGONS** Determine if it is possible for a regular polygon to have an interior angle with the given angle measure. *Explain* your reasoning.

a. 165°

b. 171°

c. 75°

d. 40°