16. **a.** Sketch a hexagon that is equiangular but not equilateral. **3–5**
b. What is its interior angle sum?
c. What is its exterior angle sum?

17. A regular polygon has 18 sides. Find the measure of each interior angle.

18. A regular polygon has 24 sides. Find the measure of each exterior angle.

19. Each interior angle of a regular polygon has measure 150. How many sides does the polygon have?

Use inductive reasoning to predict the next two numbers in each sequence.

20. 15, 30, 45, 60, . . . **21.** 100, −10, 1, $-\frac{1}{10}$, . . . **3–6**

Chapter Test

Complete each statement with the word *always*, *sometimes*, or *never*.

1. Two lines that have no points in common are ___?___ parallel.

2. If a line is perpendicular to one of two parallel lines, then it is ___?___ perpendicular to the other one.

3. If two lines are cut by a transversal and same-side interior angles are complementary, then the lines are ___?___ parallel.

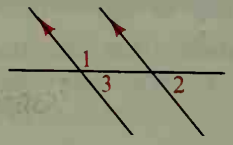
4. An obtuse triangle is ___?___ a right triangle.

5. In $\triangle ABC$, if $\overline{AB} \perp \overline{BC}$, then $\overline{AC}$ is ___?___ perpendicular to $\overline{BC}$.

6. As the number of sides of a regular polygon increases, the measure of each exterior angle ___?___ decreases.

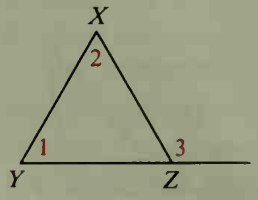
Find the value of x.

7. $m\angle 1 = 3x - 20$, $m\angle 2 = x$
8. $m\angle 2 = 2x + 12$, $m\angle 3 = 4(x - 7)$

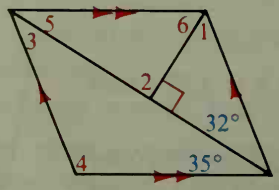


Find the measures of the numbered angles.

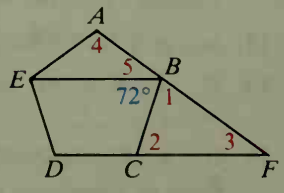
9. XYZ is regular.



10.



11. $ABCDE$ is regular.



12. In the diagram for Exercise 11, explain why $\overline{EB}$ and $\overline{DF}$ must be parallel.