

16. a. Sketch a hexagon that is equiangular but not equilateral.
 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?

3-5

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

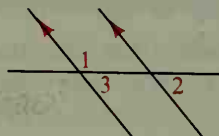
Chapter Test

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

- Two lines that have no points in common are ? parallel.
- If a line is perpendicular to one of two parallel lines, then it is ? perpendicular to the other one.
- If two lines are cut by a transversal and same-side interior angles are complementary, then the lines are ? parallel.
- An obtuse triangle is ? a right triangle.
- In $\triangle ABC$, if $\overline{AB} \perp \overline{BC}$, then \overline{AC} is ? perpendicular to \overline{BC} .
- 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. $m\angle 2 = 2x + 12$, $m\angle 3 = 4(x - 7)$

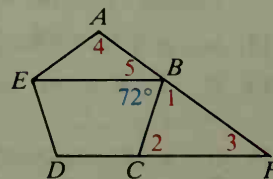
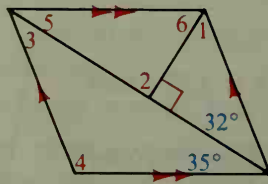
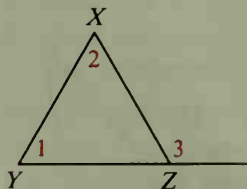


Find the measures of the numbered angles.

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.