Name _____ **Date** _____

LESSON 8.1

Practice B

For use with pages 506–513

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

1. Hexagon

2. Dodecagon

3. 20-gon

4. 40-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. 180°

6. 540°

7. 900°

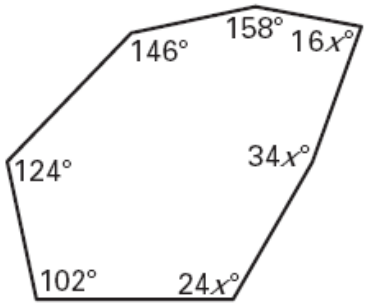
8. 5040°

9. 5940°

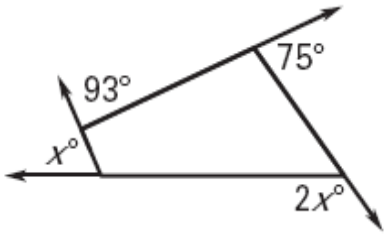
10. 8640°

Find the value of x.

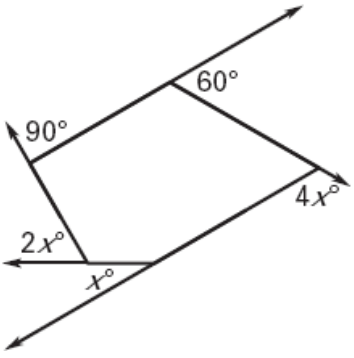
11.



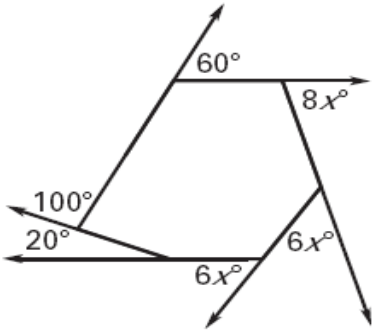
12.



13.



14.



15. What is the measure of each exterior angle of a regular nonagon?

16. The measures of the exterior angles of a convex quadrilateral are 90°, 10x°, 5x°, and 45°. What is the measure of the largest exterior angle?

17. The measures of the interior angles of a convex octagon are 45x°, 40x°, 155°, 120°, 155°, 38x°, 158°, and 41x°. What is the measure of the smallest interior angle?

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

18. Regular triangle

19. Regular octagon

20. Regular 16-gon

21. Regular 45-gon

22. Regular 60-gon

23. Regular 100-gon

In Exercises 24 and 25, find the value of *n* for each regular *n*-gon described.

24. Each interior angle of the regular n-gon has a measure of 175.2°.

25. Each exterior angle of the regular n-gon has a measure of 3°.

26. Storage Shed The side view of a storage shed is shown below. Find the value of x. Then determine the measure of each angle.