Polygons

Find the sum of the angle measures in each regular polygon.

1. hexagon
2. octagon
3. nonagon

Find the measure of one angle in each polygon.

4. a regular pentagon
5. a regular heptagon
6. a regular octagon

Give another name for each polygon.

7. 8. 9. a 12-sided figure

Calculate the sum of the angle measures by dividing each figure into triangles.

10. Use the figure in Exercise 7.
11. Use the figure in Exercise 8.

Algebra • Expressions If \( n \) is the number of sides, the sum of the angle measures in a polygon can be written as \((n - 2) \times 180^\circ\). Use the expression to find the angle sum of each polygon.

12. a heptagon
13. an undecagon

14. What is the name for a six-sided figure?
   - A quadrilateral
   - B heptagon
   - C hexagon
   - D pentagon

15. Describe how you would find the sum of the angle measures of a twenty-sided polygon. How many degrees are there?

Test Prep