Angle Measures in Polygons  Lesson 9-6

Why? Use a protractor to find the measure of \( \angle ABC \). Then classify the angle.

- Place the center point of the protractor on the vertex of the angle.
- Read the measures where ray \( BA \) and ray \( BC \) cross.
- Ray \( BA \) crosses at 40°, and ray \( BC \) crosses at 120°.
- The measure of \( \angle ABC \) is 120° – 40°, or 80°.
- Since 80° < 90°, the angle is acute.

Finding Perimeter  Lesson 9-7

Why? You would need to find the perimeter of your backyard to know how much fencing is needed to enclose it.

The perimeter of a figure is the distance around it.

The formula for the perimeter of a rectangle is \( P = 2l + 2w \).

Circles and Circumference  Lesson 9-8

Why? The shape of a bicycle wheel is a circle. The size of tires and inner tubes are given by their diameters.

The circle is circle \( O \).
\( AB \) is a diameter.
\( OA, OB, \) and \( OC \) are radii.

Pi is the ratio of the circumference to the diameter, \( \frac{C}{d} \), for any circle. This ratio is represented by the Greek letter \( \pi \), which is read as “pi.” \( \frac{C}{d} = \pi \)

The decimal representation of pi starts with 3.14159265 . . . and goes on forever without a repeating pattern. We approximate pi using either 3.14 or \( \frac{22}{7} \).