Name: _____

Date: _____

Arc length

Every angle can be placed at the center of a circle. The angle then cuts off part of the edge of the circle. If you have a 45-degree angle, inside a circle with a radius of 4 inches, what is the length of the arc that this makes at the edge of the circle?

Solve this by making a carefully-measured diagram, or by sketching and using mathematical reasoning.

Show your work, and write your answer in a complete sentence.