Name _____ Date _____

1.1 Practice B

In Exercises 1–4, find the indicated measure.

1. A state park has an area of 112 acres. The table shows the estimated park populations for several animals. Find the population density in animals per acre for each animal.

Animal	Otter	Raccoon	Fox	Bobcat
Population	35	186	9	3

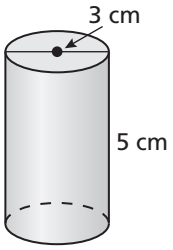
2. A city park is triangular with a base length of 4 blocks and a height of 7 blocks. During an evening concert, its population density is about 54 people per square block. Find the number of people in the park that evening.

3. About 150,000 people live in a circular region with a population density of about 1578 people per square mile. Find the radius of the region.

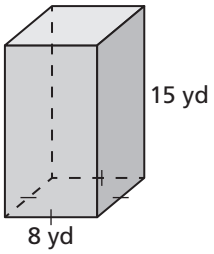
4. About 1.75 million people live in a circular region with a population density of about 5050 people per square mile. Find the radius of the region.

In Exercises 5 and 6, describe how the change affects the surface area of the right prism or right cylinder.

5. doubling the diameter



6. multiplying the base edge by 2 and the height by $\frac{1}{3}$



7. A baseball with a 2.9-inch diameter has a layer of leather on its surface.

a. Does a softball with a diameter that is $\frac{4}{3}$ times the diameter of the baseball need $\frac{4}{3}$ times the amount of leather? Explain.

b. What is the radius of a softball that uses four-thirds of the amount of leather used to cover the 2.9-inch baseball?