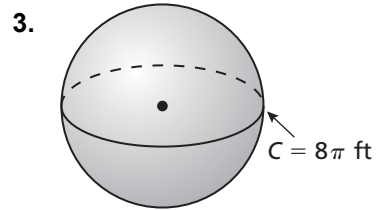
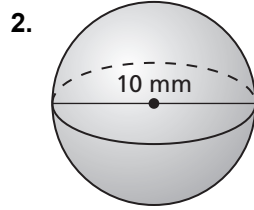
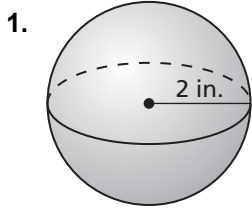


11.7 Practice A

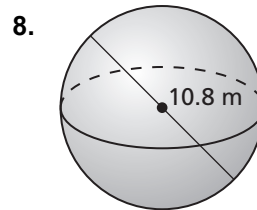
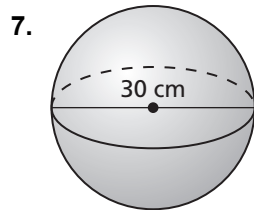
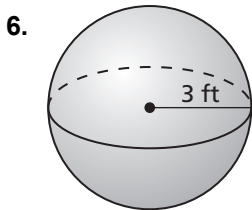
In Exercises 1–3, find the surface area of the sphere.



In Exercises 4 and 5, find the indicated measure.

4. Find the radius of a sphere with a surface area of 36π square meters.
5. Find the diameter of a sphere with a surface area of 81π square yards.

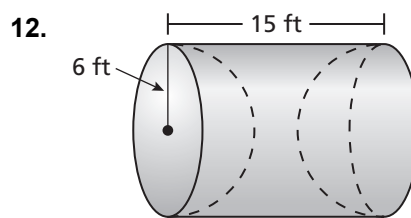
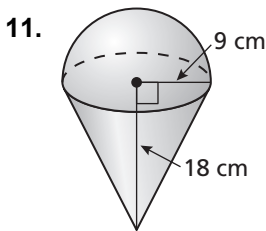
In Exercises 6–8, find the volume of the sphere.



In Exercises 9 and 10, find the volume of the sphere with the given surface area.

9. Surface Area = $4\pi \text{ in.}^2$
10. Surface Area = $676\pi \text{ km}^2$

In Exercises 11 and 12, find the volume of the composite solid.



13. A sphere is inscribed in a cube with a volume of 8 cubic yards. What is the surface area of the sphere? Explain your reasoning.
14. In 2000, the International Table Tennis Federation changed the official diameter of a table tennis ball from 38 millimeters to 40 millimeters. Without calculating surface areas and volumes, determine how the surface area and volume of the ball changed. Explain your reasoning. Find the surface areas and volumes to check your answer.