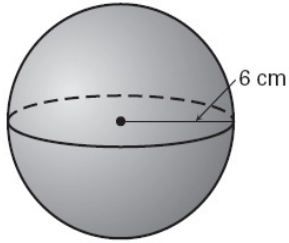


Name _____

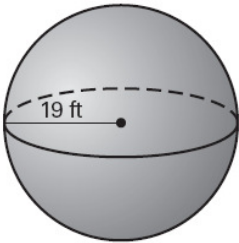
Spheres - Surface Area & Volume (12.6)

Find the surface area and volume of each sphere. Round your answer to two decimal places.

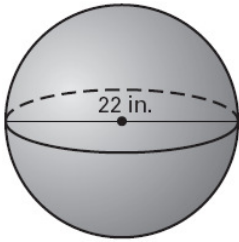
1.



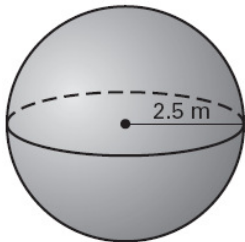
2.



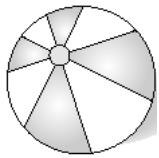
3.



4.



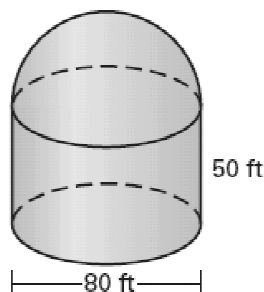
5. A beach ball has a surface area of about 78.54 square feet. Find the radius of the beach ball.



$$S = 78.54 \text{ ft}^2$$

6. Find the volume of the beach ball. Round your answer to two decimal places.

7. A grain storage tank is in the shape of a cylinder covered by a half sphere as shown. The height of the cylinder is 50 feet and its diameter is 80 feet. Find the total surface area (including the base) and volume of the tank.



8. A rubber shell filled with air forms a rubber ball. The shell's outer diameter is 65 millimeters, and its inner diameter is 56 millimeters. Find the volume of rubber used to make the ball. Round your answer to the nearest cubic centimeter.

9. The volume of a sphere is 1000 cm^3 .

a. Find the radius of the sphere. Round to the nearest hundredth.

b. Find the surface area of the sphere. Round to the nearest hundredth.

10. The volume of a sphere is 124 cm^3 .

a. Find the radius of the sphere. Round to the nearest hundredth.

b. Find the surface area of the sphere. Round to the nearest hundredth.

11. The surface area of a sphere is 500 cm^2 .

a. Find the radius of the sphere. Round to the nearest hundredth.

b. Find the volume of the sphere. Round to the nearest hundredth.

12. The surface area of a sphere is 256 cm^2 .

a. Find the radius of the sphere. Round to the nearest hundredth.

b. Find the volume of the sphere. Round to the nearest hundredth.