Name

LESSON 18.3
More Practice

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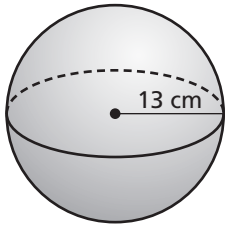
Find the volume of each figure. Round your answer to the nearest tenth.

1.



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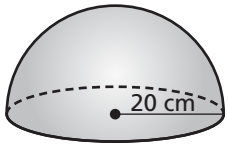


3. a sphere with a radius of 7 feet

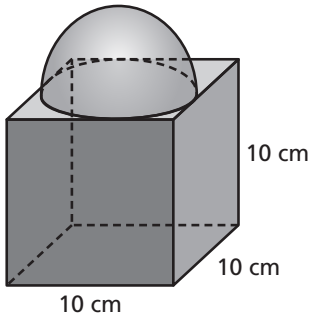
4. a sphere with a diameter of 18 inches

5. a sphere with a diameter of 12 meters

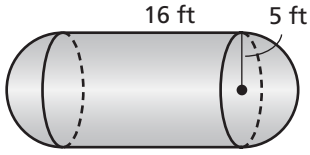
6. a hemisphere with a diameter of 8 feet

Find the volume of each composite figure. Round your answer to the nearest tenth.

7.



8.



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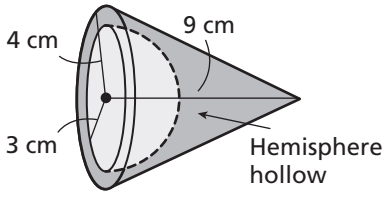

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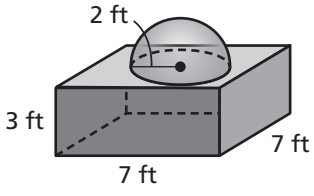
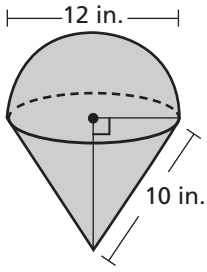


11. Math on the Spot Find the volume of the composite figure. Round to the nearest cubic inch.



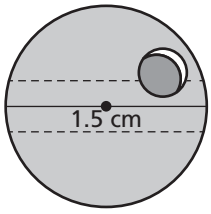
12. Reason The diameter of Earth's moon is about 2159 miles. Like Earth, it is nearly spherical. Use the information given in Example 2 to estimate how many moons could fit inside Earth.

13. Tyler is designing a bouncy object for his toy manufacturing company. The object consists of a cube with hemispheres protruding from each face. The side length of the cube and the diameters of the hemispheres all measure 6 inches. What is the volume of the object to the nearest cubic inch?

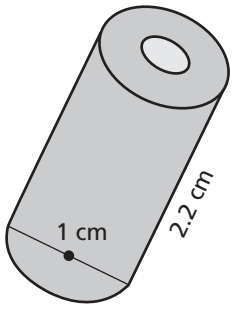
14. A cylindrical container holds three tennis balls, each with a radius of 3.3 centimeters. The radius of the container is 3.5 centimeters, and the length is 20.2 centimeters. What is the volume of the empty space in the container to the nearest tenth?

15. Critique Reasoning Students are making jewelry in art class. Andi is drilling through the center of holes wooden spheres to make beads for a necklace. (Note: because the sphere is round, the holes drilled through it are not quite cylinders because the "bases" are not flat.) Clara is drilling cylindrical holes into wooden cylinders to make beads for a bracelet. Clara says the volumes of their beads are the same, but Andi says the volume of her beads is greater than the volume of Clara's beads. The holes have radius 0.25 centimeter. Who is correct? Explain.

Andi's bead



Clara's bead



16. Patrick has to calculate the volume of 16 hemispheres with the same radius. To simplify the calculations, he computes the volume of one sphere with the given radius. By what number does Patrick need to multiply the volume of the sphere to determine the total volume?

Ⓐ 2
Ⓑ 4
Ⓒ 8
Ⓓ 16