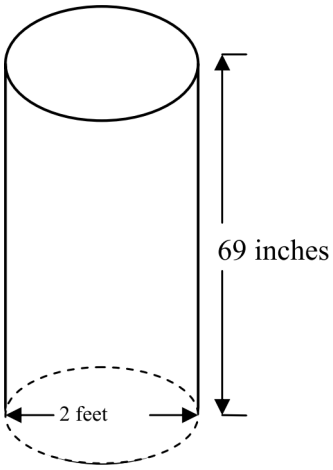
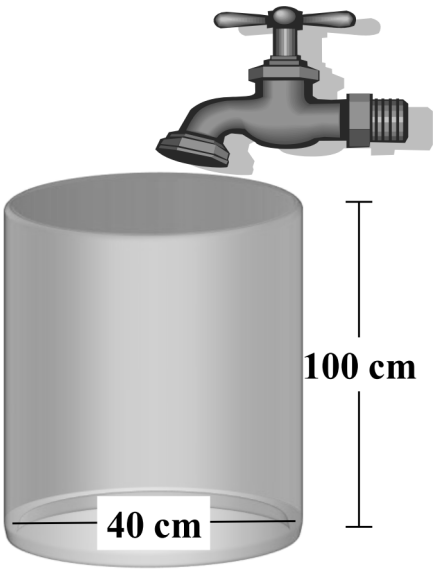
1. Look at the drawing of a cylindrical water heater below.

Cyclindrical Water Heater

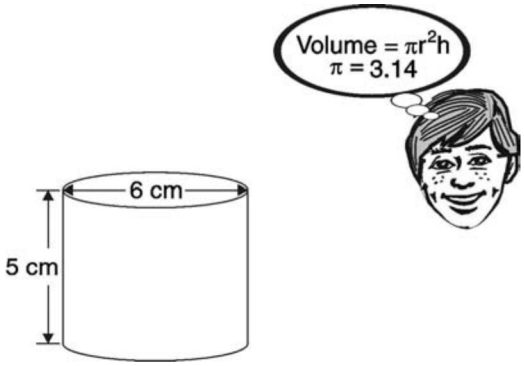


How much water, in *cubic inches*, can the water heater hold when full? Round your answer to the nearest cubic inch. Show or explain how you got your answer.

2. James wanted to fill his container with water. He wondered how much water he would need to fill it. Use the measurements in the diagram below to determine the container's volume.



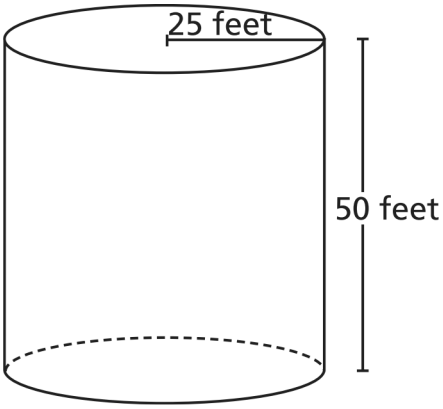
3. Use the picture below to answer the question that follows.



Which is the volume of the cylinder?

A. 94.2 cm^3 B. 141.3 cm^3 C. 188.4 cm^3 D. 565.2 cm^3

4. Use the figure below to answer the following question.



The dimensions of a cylindrical water tank are shown. Which is closest to the volume of the water tank? (Use 3.14 for π.)

A. 3,925 $ft.^3$ B. 7,850 $ft.^3$ C. 98,125 $ft.^3$ D. 308,113 $ft.^3$

5. Rita bought yogurt in a cylinder-shaped container. The diameter of the container is 6 centimeters and the height is 5 centimeters. What is the volume of the yogurt container? (Use 3.14 for π.)

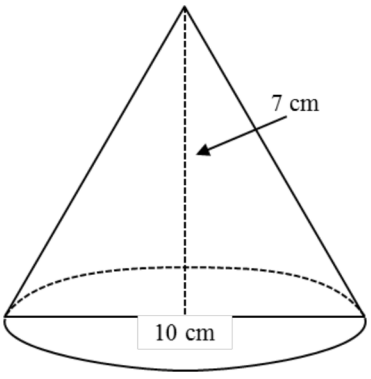
A. $94.2\,\text{cm}^3$ B. $141.3\,\text{cm}^3$ C. $471\,\text{cm}^3$ D. $565.2\,\text{cm}^3$

6. A mailing tube in the shape of a cylinder has a height of 24 inches and a radius of 3 inches. What is the volume, in cubic inches, of the mailing tube? (Use 3.14 for π.)

7. What is the ***approximate*** volume of a cylinder with a radius of 4 feet and a height of 15 feet?

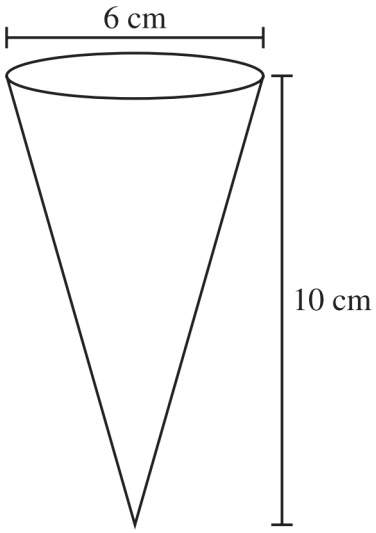
A. 189 cubic feet B. 377 cubic feet C. 754 cubic feet D. 1,508 cubic feet

8. What is the *approximate* volume of the cone below?



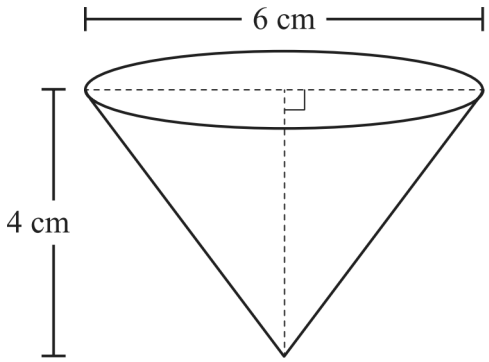
A. 70 cm^3 B. 183 cm^3 C. 549 cm^3 D. 733 cm^3

9. A paper cup in the shapø of a rightcircular cone has a height of 10 centimeters and a diameter of 6 centimeters, as shown in the drawing below.



What is the volume, in cubic centimeters, of the cup?

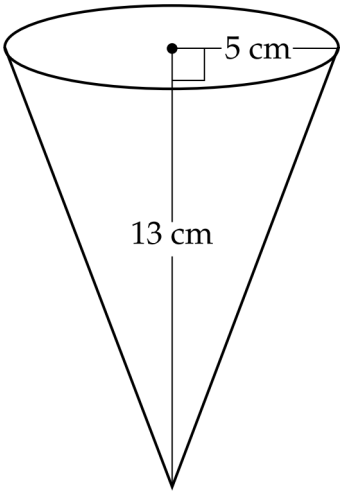
10. A right circular cone and some of its measurements are shown in the diagram below.



Based on the diagram, which of the following is closest to the volume of the cone?

A. $13\,cm^3$ B. $38\,cm^3$ C. $113\,cm^3$ D. $151\,cm^3$

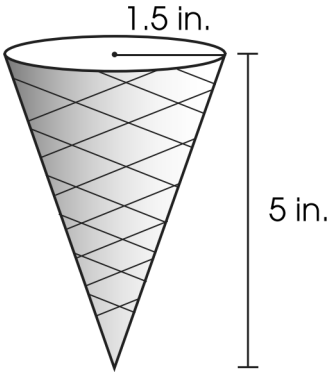
11. A cone is shown below.



Note: The figure is not drawn to scale.

What is the volume, in cubic centimeters, of the cone?

12. The cone shown has a height of 5 inches and a radius of 1.5 inches.



What is the approximate volume of the cone?

A. between 11 and 12 cubic inches

B. between 15 and 16 cubic inches

C. between 35 and 36 cubic inches

D. between 39 and 40 cubic inches

13. A cone has a radius of 4 cm and a height of 3 cm. What is the volume of the cone, to the nearest tenth of a cubic centimeter?

A. 12.6 B. 25.1 C. 50.2 D. 150.7

14. A pile of sand is in the shape of a cone. The diameter of the base is 24 feet and the height is 10 feet. Which of these is the volume of the pile of sand? Round the answer to the nearest cubic foot.

A. 126 cubic feet B. 251 cubic feet C. 1,508 cubic feet D. 6,032 cubic feet

15. An artist carved a sphere out of stone. The radius of the sphere is 0.93 meter.

Which of the following is closest to the volume of the sphere?

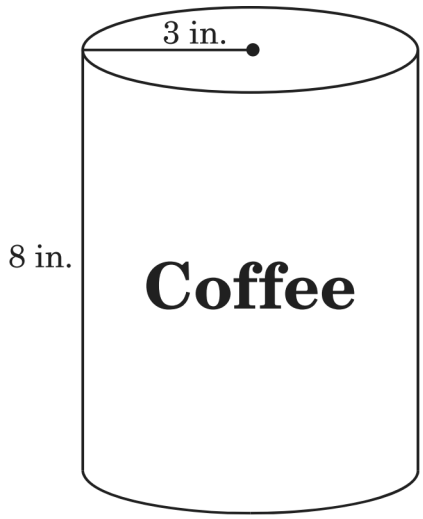
A. $3.37\,m^3$ B. $3.62\,m^3$ C. $10.11\,m^3$ D. $11.69\,m^3$

16. Madison is filling balloons with helium. When full, the balloons are nearly spherical in shape with a diameter of 12 inches.

What is the approximate volume of each balloon when it is full?

A. 115 cubic inches B. 450 cubic inches C. 680 cubic inches D. 900 cubic inches

17. The coffee can below is $\frac{3}{4}$ full.



How much coffee is in the can?

A. about 57 in.^{3} B. about 130 in.^{3} C. about 170 in.^{3} D. about 226 in.^{3}

Tutoring Volume 09/22/2016

1.
Answer: about 31,215 or 9936π cubic inches

2.
Answer:

3.
Answer: B

4.
Answer: C

5.
Answer: B

6.
Answer: 678.24 cubic inches

7.
Answer: C

8.
Answer: B

9.
Answer: 30π cubic centimeters, or a decimal approximation of 30π

10.
Answer: B

11.
Answer:

12.
Answer: A

13.
Answer: C

14.
Answer:

15.
Answer: A

16.
Answer: D

17.
Answer: C