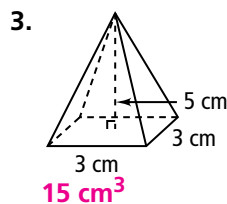
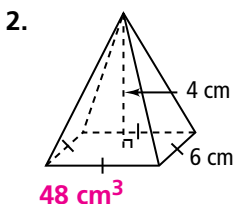
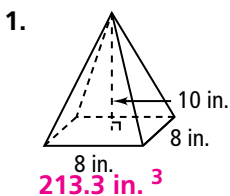


Practice

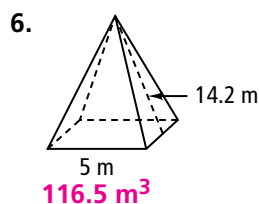
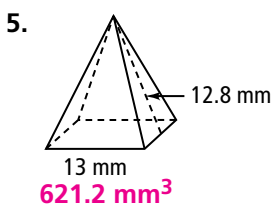
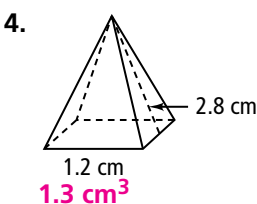
Form G

Volumes of Pyramids and Cones

Find the volume of each square pyramid. Round to the nearest tenth if necessary.



Find the volume of each square pyramid, given its slant height. Round to the nearest tenth.



7. The base of a pyramid is a square, 4.5 cm on a side. The height is 5 cm.

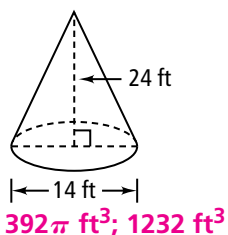
Find the volume. **33.75 cm^3**

8. The base of a pyramid is a square, 3.2 cm on a side. The height is 10 cm.

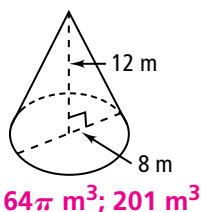
Find the volume to the nearest tenth. **34.1 cm^3**

Find the volume of each cone in terms of π and also rounded as indicated.

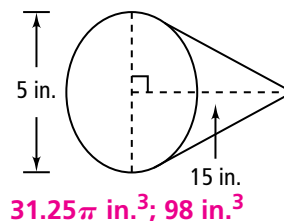
9. nearest cubic foot



10. nearest cubic meter



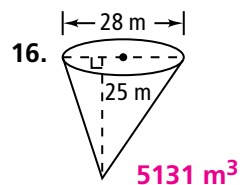
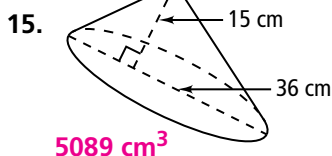
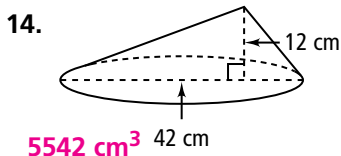
11. nearest cubic inch



12. The base has a radius of 16 cm and a height of 12 cm. Round to the nearest cubic centimeter. **$1024\pi \text{ cm}^3; 3217 \text{ cm}^3$**

13. The base has a diameter of 24 m and a height of 15.3 m. Round to the nearest cubic meter. **$734.4\pi \text{ m}^3; 2307 \text{ m}^3$**

Find the volume to the nearest whole number.

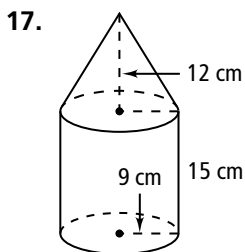


Practice (continued)

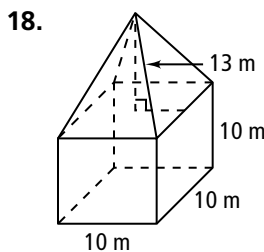
Form G

Volumes of Pyramids and Cones

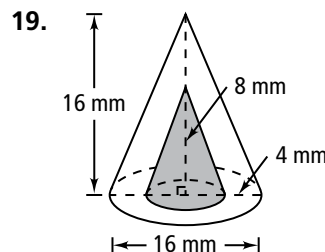
Find the volume of each figure to the nearest whole number.



4835 cm³

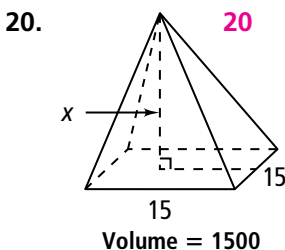


1433 m³

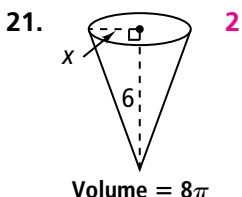


938 mm³

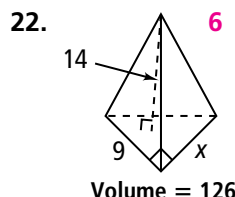
Algebra Find the value of x in each figure. Leave answers in simplest radical form. The diagrams are not to scale.



20



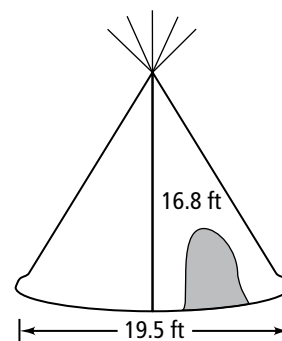
2



6

23. One right circular cone is set inside a larger right circular cone. The cones share the same axis, the same vertex, and the same height. Find the volume of the space between the cones if the diameter of the inside cone is 6 in., the diameter of the outside cone is 9 in., and the height of both is 5 in. Round to the nearest tenth. **58.9 in.³**

24. Some Native Americans still use tepees for special occasions and ceremonial purposes. Each group attending a family reunion, for example, might bring a small tepee, while using a larger tepee like the one pictured at the right for gathering together. The many poles form a rough cone with a circular base. What is the approximate volume of air in the tepee at the right, to the nearest cubic foot? **1672 ft³**



Visualization Suppose you revolve the plane region completely about the given line to sweep out a solid of revolution. Describe the solid. Then find its volume in terms of π .

25. the x -axis **cone; 4π**

26. the y -axis **cone; 6π**

27. the line $x = 3$ **cylinder with cone cut out; 12π**

28. the line $y = -2$ **cylinder with cone cut out; 8π**

