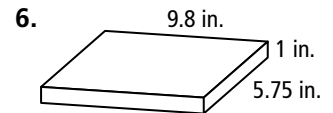
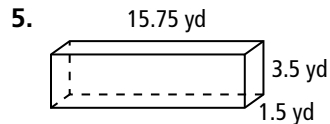
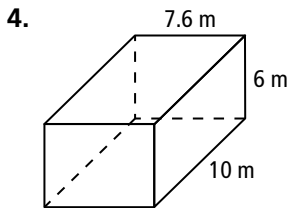
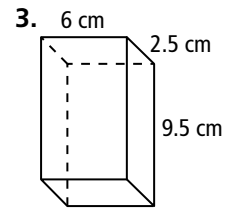
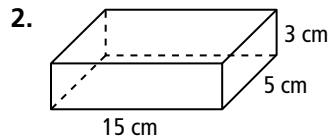
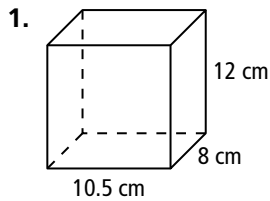


## 9.3

## Volumes of Prisms and Cylinders

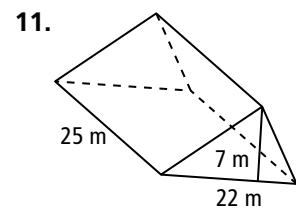
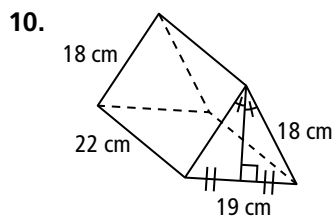
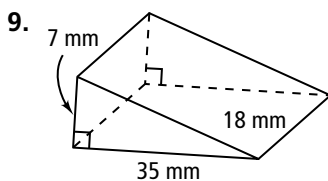
Find the volume of each rectangular prism.



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

8. The base is a rectangle with length 3.2 cm and width 4 cm. The height is 10 cm.

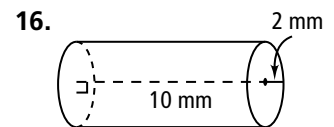
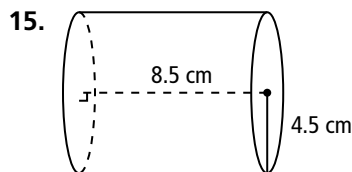
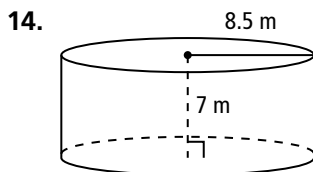
Find the volume of each triangular prism to the nearest tenth.



12. The base is a right triangle with a leg of 12 in. and hypotenuse of 15 in. The height of the prism is 10 in.

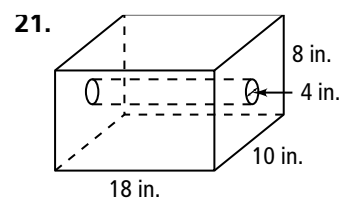
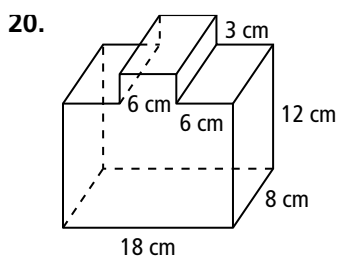
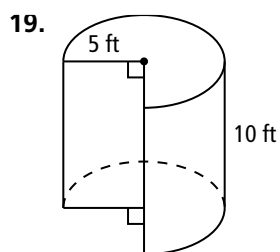
13. The base is a  $30^\circ$ - $60^\circ$ - $90^\circ$  triangle with a hypotenuse of 10 m. The height of the prism is 15 m. Find the volume to the nearest tenth.

Find the volume of each cylinder in terms of  $\pi$  and to the nearest tenth.



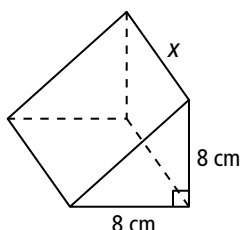
17. a right cylinder with a radius of 3.2 cm and a height of 10.5 cm

18. a right cylinder with a diameter of 8 ft and a height of 15 ft.

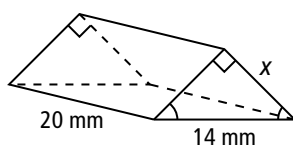


Find the value of  $x$  to the nearest tenth.

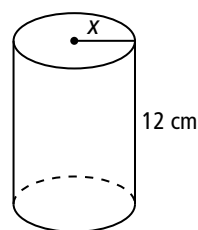
22. Volume:  $576 \text{ cm}^3$



23. Volume:  $980 \text{ mm}^3$

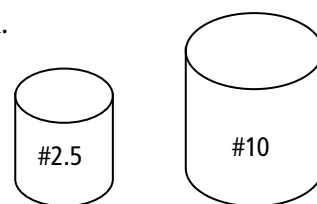


24. Volume:  $602.88 \text{ cm}^3$

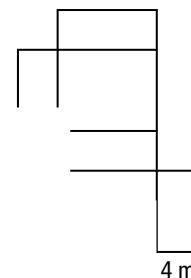


25. A cylindrical weather satellite has a diameter of 6 ft and a height of 10 ft. What is the volume available for carrying instruments and computer equipment, to the nearest tenth of a cubic foot?

26. A No. 10 can has a diameter of 15.5 cm and a height of 17.5 cm. A No. 2.5 can has a diameter of 9.8 cm and a height of 11 cm. What is the difference in volume of the two can types, to the nearest cubic centimeter?



27. The NCAA recommends that a competition diving pool intended for use with two 1-m springboards and two 3-m springboards, in addition to diving platforms set at 5 m, 7.5 m, and 10 m above the water, have a width of 75 ft 1 in., a length of 60 ft, and a minimum water depth of 14 ft 10 in. What is the minimum volume of water such a pool would hold in cubic yards, to the nearest whole number?



28. What is the volume of the solid figure formed by the net?