

Write the letter for the correct answer in the blank at the right of each question.

- How many cubic feet are in one cubic yard?
A. 3 B. 9 **C. 27** D. 81
- The surface area of a cube is 96 square feet. Find the volume.
A. 4 ft³ B. 16 ft³ **C. 64 ft³** D. 256 ft³
- A cylinder whose height is 5 meters has a volume of 320π cubic meters. Find the radius of the cylinder.
A. 8 m B. 12.8 m C. 64 m D. 201 m
- A cylinder has a 10-inch diameter and an 11-inch height. Find the volume to the nearest tenth.
A. 172.8 in³ B. 345.6 in³ **C. 868.9 in³** D. 3455.8 in³
- A square pyramid has a height that is 8 centimeters long and a base with sides that are each 9 centimeters long. Find the volume.
A. 648 cm³ B. 324 cm³ **C. 216 cm³** D. 162 cm³
- Find the volume to the nearest tenth.
A. 80.0 ft³ B. 78.4 ft³ **C. 48.0 ft³** D. 39.2 ft³
- The volume of a cone is 1080π cubic centimeters and the radius is 18 centimeters. Find the height.
A. 5 cm **B. 10 cm** C. 20 cm D. 30 cm
- Find the volume to the nearest tenth.
A. 3619.1 m³ **B. 4825.5 m³** D. 43,429.4 m³ C. 5541.8 in³
- A sphere has a 21-inch radius. Find the volume to the nearest tenth.
A. 38,792.4 in³ B. 19,396.2 in³ C. 5541.8 in³ D. 1847.3 in³
- A sphere has a volume that is 972π cubic inches. Find the radius.
A. 2 in. B. 3 in. C. 6 in. **D. 9 in.**
- A sphere has a 6-inch radius. A cone has a 12-inch height and base with a 6-inch radius. Compare their volumes.
A. The volume of the sphere is greater.
B. The volume of the cone is greater.
C. The volumes are equal.
D. not enough information



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- Which of the following could be the units of measure for the volume of a solid?
A. cubic inches B. square inches C. inches D. cubic seconds
- The area of the base of a prism is 96 square centimeters and the height is 9 centimeters. Find the volume.
A. 288 cm³ **B. 864 cm³** C. 932 cm³ D. 7776 cm³
- The volume of a cylinder is 62.8 cubic meters and the radius is 2 meters. Find the height to the nearest meter.
A. 20 m B. 10 m **D. 5 m** C. 8 m
- A cylinder has a radius that is 4 inches long and a height that is 9 inches long. Find the volume to the nearest tenth.
A. 131.1 in³ B. 226.2 in³ **C. 452.4 in³** D. 1809.6 in³
- Find the volume of a pyramid with a height of 10 inches and a base with an area of 21 square inches.
A. 210 in³ B. 105 in³ **C. 70 in³** D. 35 in³
- Find the volume of the pyramid.
A. 360 cm³ B. 390 cm³ C. 1080 cm³ D. 1170 cm³
- A cone and a cylinder have the same radius and the same height. The volume of the cone is what fraction of the volume of the cylinder?
A. $\frac{1}{2}$ **B. $\frac{1}{3}$** C. $\frac{1}{4}$ D. $\frac{1}{8}$
- Find the volume to the nearest tenth.
A. 1206.4 in³ B. 402.1 in³ C. 301.6 in³ **D. 100.5 in³**
- A sphere has a radius that is 12 centimeters long. Find the volume to the nearest tenth.
A. 7238.2 cm³ B. 3619.1 cm³ C. 1809.6 cm³ D. 603.2 cm³
- A sphere has a volume that is 36π cubic meters. Find the radius of the sphere.
A. 2 m **B. 3 m** C. 6 m D. 12 m
- The radius of a sphere is increased from 6 inches to 8 inches. How much is the volume increased to the nearest tenth?
A. 3719.6 in³ **B. 1239.9 in³** C. 117.3 in³ D. 33.5 in³

