

Geometric Measurement Worksheet 3 - Answers

Find the volume of the following figures. Round your answers to the nearest tenth.

1. Compare the volume of a cylinder with a radius of 5 cm and height of 10 cm with the volume of a sphere with radius 5 cm.
The cylinder is approximately 261.8 cm^3 larger in volume.
2. Compare the volume of a cone and cylinder both with radius 1 in and height 4 in.
The cylinder (12.6 in^3) contains three times the volume of the cone (4.2 in^3).
3. If you have a perfectly shaped snowball with a diameter of 8 cm, and half of it falls off on the way to its target, what's the volume of the remaining snowball?
 134.0 cm^3
4. Calculate the volume of helium needed to inflate a spherical latex balloon with a diameter of 18 inches.

It will take about 3053.6 in^3 of helium to fill the balloon.
5. A cone is enclosed inside a cylinder. The cone and the cylinder have equal bases and equal heights. If the volume of the cone is 30 cm^3 , what is the volume of the cylinder?
 90 cm^3 .
6. A cone is enclosed in one hemisphere of a sphere. The cone and sphere share a radius of r . The cone's height is also r . Find the volume of the sphere if the cone has a volume of 500 cm^3 .
 2000 cm^3
7. What is the volume of an oblique rectangular pyramid with a length of 7 cm, a width of 6 cm, and a height of 22 cm?
 308 cm^3
8. A square pyramid is contained within a cone. Both share a height of 20 cm. The square base of the pyramid has an edge of 10 cm. What is the volume of the cone?
 1047.2 cm^3
9. The top of a cone with a radius of 10 m and height 35 m is cut so that the height of the new solid is 15 m and the radius at the top is 5 m. What is the volume of this truncated cone?
 3141.6 m^3
10. Given a cube with an edge of 8 in and a sphere with a diameter of 8 in, calculate the volume remaining in the cube if the sphere is inserted into the cube.
 243.9 in^3

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