

Reteaching 10-9 Volume: Pyramids, Cones, and Spheres

Find the volume of the cone.

Use the formula $V = \frac{1}{3}Bh$.

$r = \frac{1}{2}d = \frac{1}{2}(10) = 5$ The radius is half the diameter.

$B = \pi r^2$

$B = \pi(5)^2 \approx 78.5$

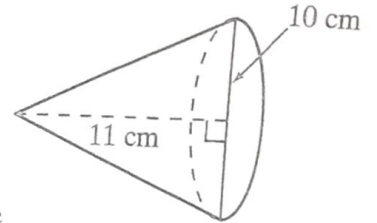
Substitute 5 for r to find the area of the base and multiply.

$V = \frac{1}{3}Bh$

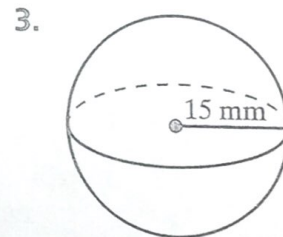
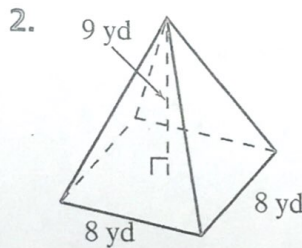
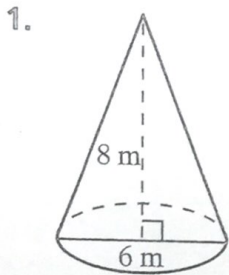
$V = \frac{1}{3}(78.5)(11)$
 ≈ 287.83

Substitute 78.5 for B and 11 for h .
Multiply and round.

The volume is approximately 287.83 cm^3 .
Remember to use cubic units.



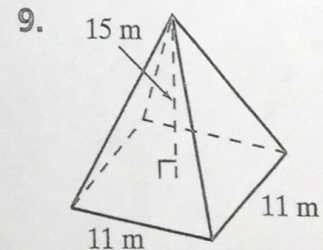
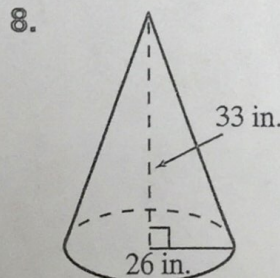
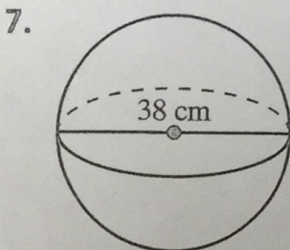
Find the volume of each figure to the nearest hundredth.



4. cone
 $B = 93 \text{ ft}^2$
 $h = 7 \text{ ft}$

5. sphere
 $r = \frac{3}{4} \text{ in.}$

6. pyramid
 $B = 774 \text{ cm}^2$
 $h = 42 \text{ cm}$



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