

Section 12-2: Volume

See Worksheet 12-2

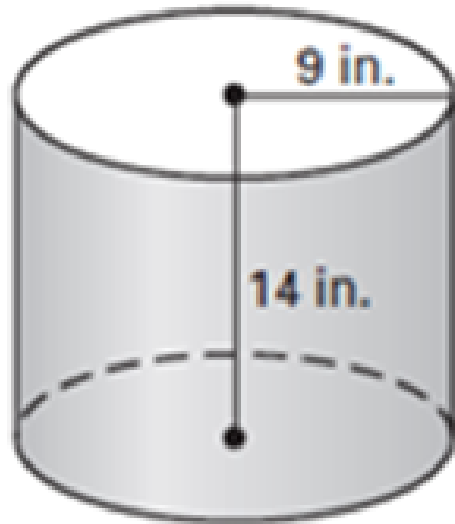
Cylinder: $V = \pi r^2 h$

Rectangular Prism: $V = \ell wh$

Cube: $V = s^3$

Side 

3.



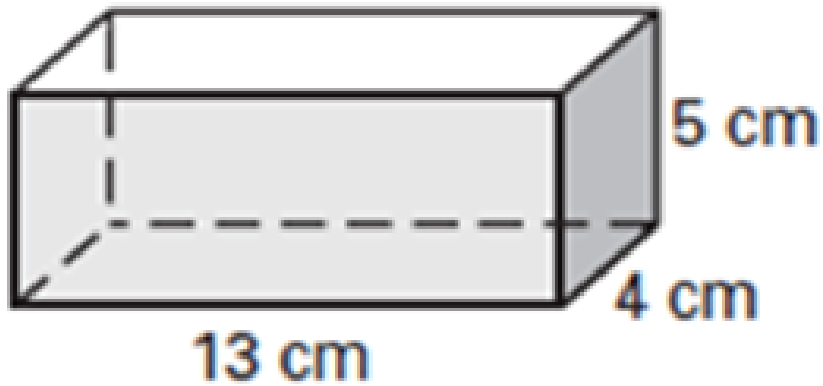
$$V = \pi r^2 h$$

$$= 3.14(9)^2(14)$$

$$= 3.14(81)(14)$$

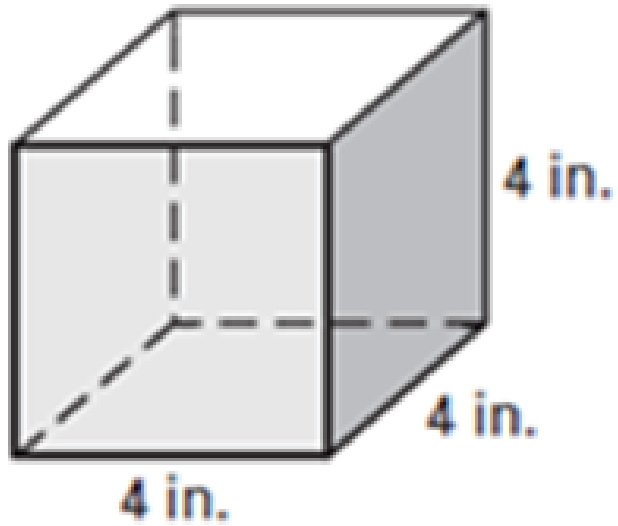
$$= 3560.8 \text{ in}^3$$

5.



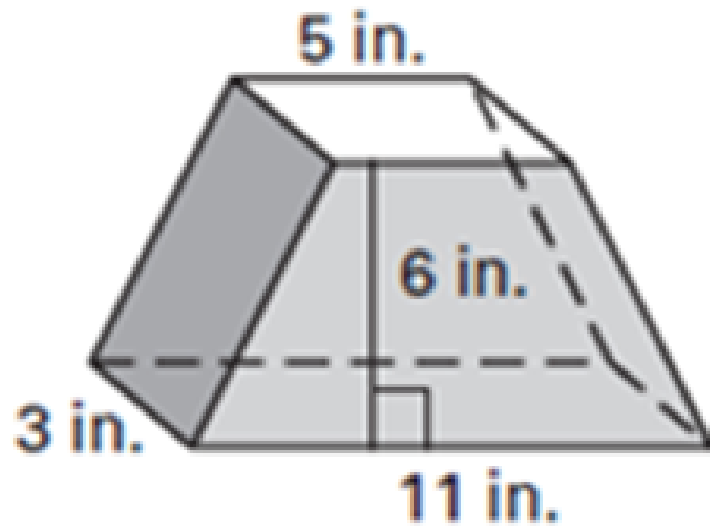
$$V = lwh = 13 \cdot 4 \cdot 5 = 260 \text{ cm}^3$$

7.



$$V = s^3 = 4^3 = 64 \text{ in}^3$$

1.



Area of trapezoid

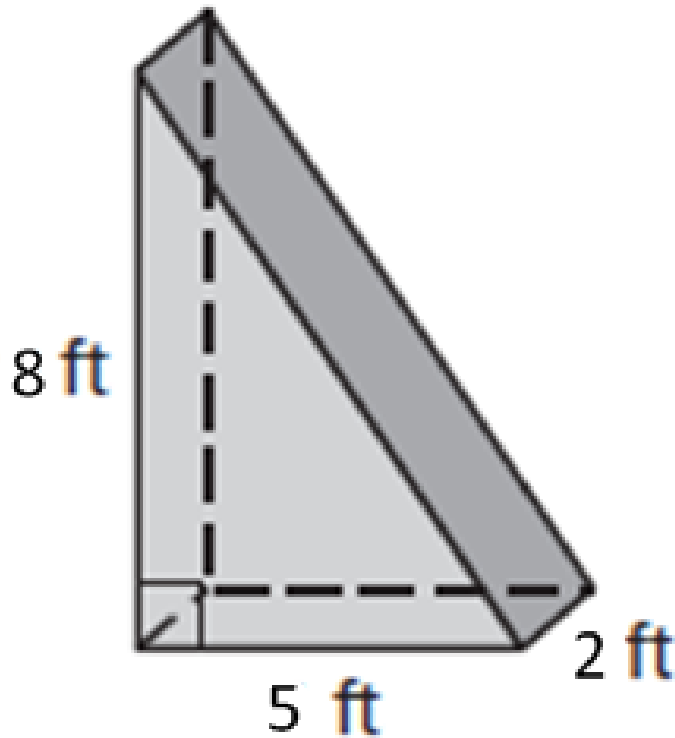
$$\begin{aligned} A &= \frac{1}{2}(b_1 + b_2)h \\ &= \frac{1}{2}(11 + 5)(6) \\ &= \frac{1}{2}(16)(6) \\ &= 48 \text{ in}^2 \end{aligned}$$

$$V = 48(3) = 144 \text{ in}^3$$

Area of Trapezoid

Depth

4. Change # 4 to have these dimensions.



Area of Triangle

$$A = \frac{1}{2}bh$$

$$= \frac{1}{2}(5)(8)$$

$$= 20 \text{ ft}^2$$

$$V = 20(2) = 40 \text{ ft}^3$$

Area of Triangle
Depth