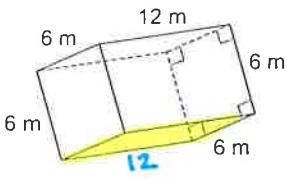


Assignment 12.8 Volume of Prisms and Pyramids

Find the volume of each figure. Round your answers to the nearest hundredth, if necessary.

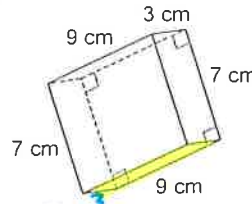
1)



Rectangular
Prism

$$\begin{aligned} V &= B H \\ &= (b \cdot h) H \\ &= (6 \cdot 12) 6 \\ &= (72) 6 \\ &= 432 \text{ m}^3 \end{aligned}$$

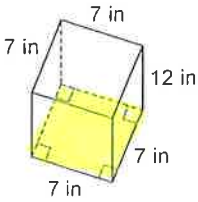
2)



Rectangular
Prism

$$\begin{aligned} V &= B H \\ &= (b \cdot h) H \\ &= (9 \cdot 3) (7) \\ &= (27) (7) \\ &= 189 \text{ cm}^3 \end{aligned}$$

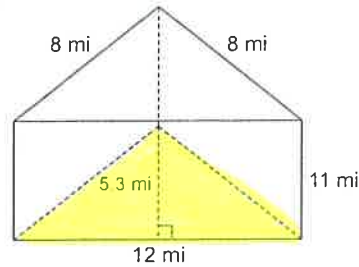
3)



Rectangular
Prism

$$\begin{aligned} V &= B H \\ &= (b \cdot h) H \\ &= (7 \cdot 7) (12) \\ &= (49) (12) \\ &= 588 \text{ in}^3 \end{aligned}$$

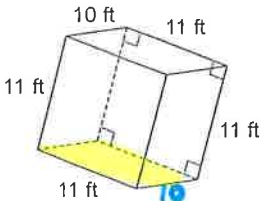
4)



Triangular
Prism

$$\begin{aligned} V &= B H \\ &= \left(\frac{1}{2} b \cdot h\right) H \\ &= \left(\frac{1}{2} \cdot 12 \cdot 5.3\right) (11) \\ &= (31.8) (11) \\ &= 349.8 \text{ mi}^3 \end{aligned}$$

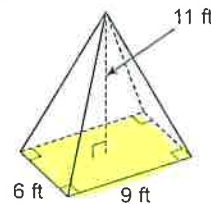
5)



Rectangular
Prism

$$\begin{aligned} V &= B H \\ &= (b \cdot h) H \\ &= (10 \cdot 11) 11 \\ &= (110) (11) \\ &= 1210 \text{ ft}^3 \end{aligned}$$

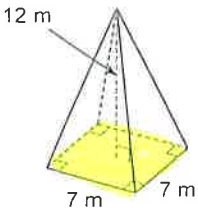
6)



Rectangular
Pyramid

$$\begin{aligned} V &= \frac{1}{3} B H \\ &= \frac{1}{3} (b \cdot h) H \\ &= \frac{1}{3} (6 \cdot 9) (11) \\ &= \frac{1}{3} (54) (11) \\ &= 198 \text{ ft}^3 \end{aligned}$$

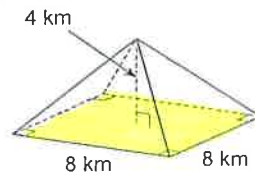
7)



Square
Pyramid

$$\begin{aligned} V &= \frac{1}{3} B H \\ &= \frac{1}{3} (b \cdot h) H \\ &= \frac{1}{3} (7 \cdot 7) (12) \\ &= \frac{1}{3} (49) (12) \\ &= 196 \text{ m}^3 \end{aligned}$$

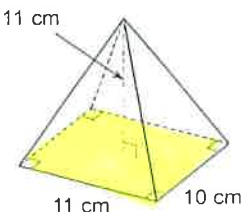
8)



Square
Pyramid

$$\begin{aligned} V &= \frac{1}{3} B H \\ &= \frac{1}{3} (b \cdot h) H \\ &= \frac{1}{3} (8 \cdot 8) 4 \\ &= \frac{1}{3} (64) 4 \\ &\approx 85 \text{ km}^3 \end{aligned}$$

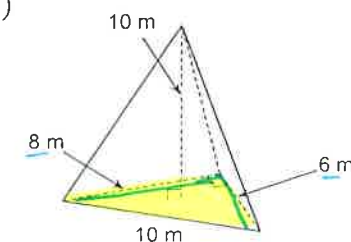
9)



Rectangular
Pyramid

$$\begin{aligned} V &= \frac{1}{3} B H \\ &= \frac{1}{3} (b \cdot h) H \\ &= \frac{1}{3} (11 \cdot 10) (11) \\ &\approx 403 \text{ cm}^3 \end{aligned}$$

10)



Triangular
Pyramid

$$\begin{aligned} V &= \frac{1}{3} B H \\ &= \frac{1}{3} \left(\frac{1}{2} b \cdot h\right) H \\ &= \frac{1}{3} \left(\frac{1}{2} \cdot 8 \cdot 6\right) (10) \\ &= \frac{1}{3} (24) (10) \\ &= 80 \text{ m}^3 \end{aligned}$$