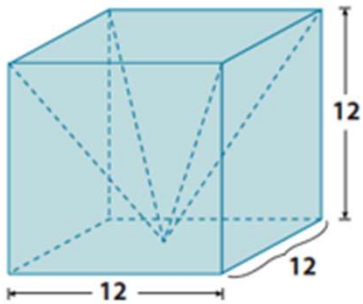
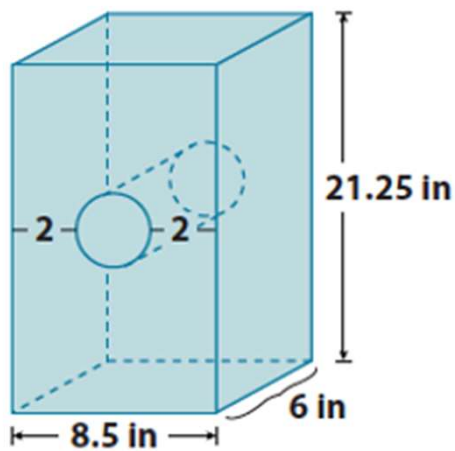


## Volume of Composite Solids

1. What is the volume of the prism shown below with the pyramid portion removed?

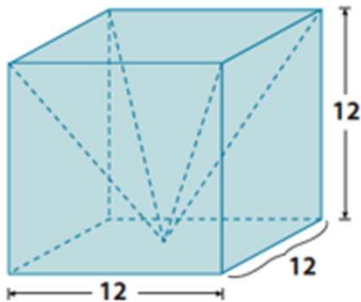


2. What is the approximate volume of the rectangular prism with a cylindrical hole shown below? Use 3.14 for  $\pi$ . Round your answer to the tenths place



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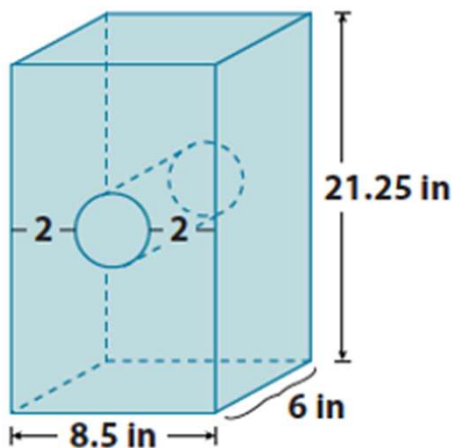
$$\begin{aligned} V &= (12)^3 \\ &= 1728. \end{aligned}$$

*The volume of the pyramid is*

$$\begin{aligned} V &= \frac{1}{3}(1728) \\ &= 576. \end{aligned}$$

*The volume of the prism with the pyramid removed is  $1728 - 576 = 1,152 \text{ units}^3$ .*

2. What is the approximate volume of the rectangular prism with a cylindrical hole shown below? Use 3.14 for  $\pi$ . Round your answer to the tenths place



*The volume of the prism is*

$$\begin{aligned} V &= (8.5)(6)(21.25) \\ &= 1083.75. \end{aligned}$$

*The volume of the cylinder is*

$$\begin{aligned} V &= \pi(2.25)^2(6) \\ &= 30.375\pi \\ &\approx 95.3775. \end{aligned}$$

*The volume of the prism with the cylindrical hole is approximately  $988.4 \text{ in}^3$ , because  $1083.75 \text{ in}^3 - 95.3775 \text{ in}^3 = 988.3725 \text{ in}^3$ .*