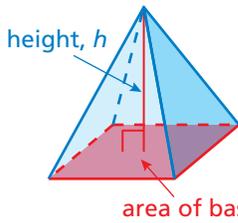


REVIEW: Volumes of Pyramids

Name _____

Key Concept and Vocabulary

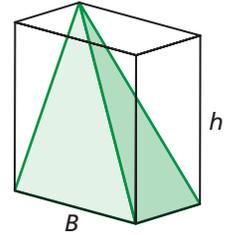


$$V = \frac{1}{3} Bh$$



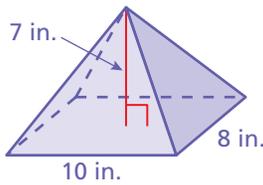
Visual Model

The volume of a pyramid is *one-third* the volume of the prism that has the same base and height.



Skill Example

1.

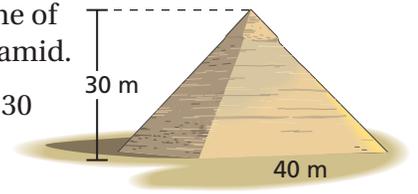


$$\begin{aligned} V &= \frac{1}{3} Bh \\ &= \frac{1}{3} \cdot (8 \cdot 10) \cdot 7 \\ &= \frac{560}{3} \\ &= 186\frac{2}{3} \text{ in.}^3 \end{aligned}$$

Application Example

2. Find the volume of the square pyramid.

$$\begin{aligned} V &= \frac{1}{3} \cdot (40^2) \cdot 30 \\ &= 16,000 \text{ m}^3 \end{aligned}$$



∴ The volume is 16,000 cubic meters.

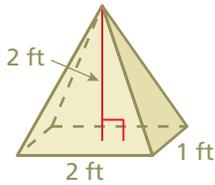
PRACTICE MAKES PURR-FECT™



Check your answers at BigIdeasMath.com.

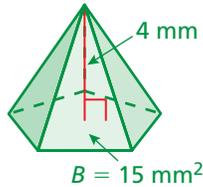
Find the volume of the pyramid.

3.



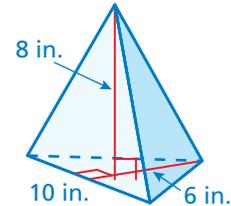
$$V = \underline{1\frac{1}{3} \text{ ft}^3}$$

4.



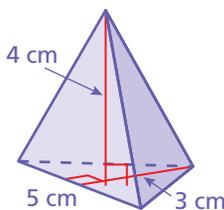
$$V = \underline{20 \text{ mm}^3}$$

5.



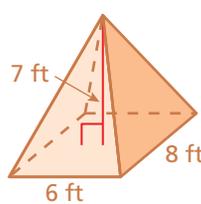
$$V = \underline{80 \text{ in.}^3}$$

6.



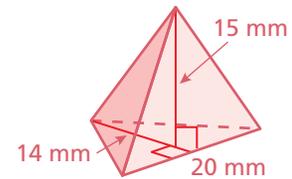
$$V = \underline{10 \text{ cm}^3}$$

7.



$$V = \underline{112 \text{ ft}^3}$$

8.



$$V = \underline{700 \text{ mm}^3}$$

9. **PYRAMID** The pyramid has a volume of 2000 cubic feet. Find a set of possible dimensions for the pyramid.

Sample answer:

$$w = \underline{5 \text{ ft}}, \ell = \underline{40 \text{ ft}}, h = \underline{30 \text{ ft}}$$

