

# Lesson 9.5a Volume of Pyramids 4-22-2019

## 9.5a Volume of a Pyramid

Volume of a pyramid - is one-third the product of the area of the base and the height of the pyramid.

$$\text{Volume} = \frac{1}{3} \text{ area of base} \cdot \text{height of pyramid}$$

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

Ex. 1 Find volume



$$\begin{aligned} V &= \frac{1}{3} Bh \\ V &= \frac{1}{3} s^2 h \\ V &= \frac{1}{3} (40)(40)(27) \\ V &= \frac{1}{3} 800 \cdot 27 \\ V &= 28000 \end{aligned}$$

Ex. 2 Find volume



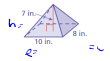
$$\begin{aligned} V &= \frac{1}{3} Bh \\ V &= \frac{1}{3} (8)(8)(4) \\ V &= \frac{1}{3} 432 \text{ mm}^3 \\ V &= 144 \text{ mm}^3 \end{aligned}$$

Ex. 3 Find volume



$$\begin{aligned} V &= \frac{1}{3} Bh \\ V &= \frac{1}{3} (6)(17.5)(10) \\ V &= \frac{1}{3} 1050 \\ V &= 350 \end{aligned}$$

Ex. 4 Find volume



$$\begin{aligned} V &= \frac{1}{3} Bh \\ V &= \frac{1}{3} (10)(8)(7) \\ V &= \frac{1}{3} 560 \text{ in}^3 \\ V &= 186 \frac{2}{3} \text{ in}^3 \approx 186.7 \text{ in}^3 \end{aligned}$$

HW: p. 386 #4-12