

6. Lat edge?  $V = 286$   $\phi = 13$

$$V = Bh$$

$$286 = 13h$$

$$22 = h$$

7a  $23 \text{ ft}^3$

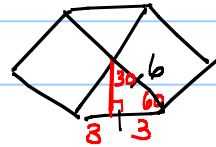
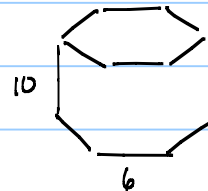
7b  $\frac{70 \text{ ft}^3}{3} \cdot \frac{62.4 \text{ lb}}{\text{ft}^3} = 1456 \text{ lbs.}$

12.  $V =$  reg hex rt prism  
 $TSA =$

$$B = A = \frac{1}{2} a p$$

$$= \frac{1}{2} 3\sqrt{3} (6 \cdot 6)$$

$$= 54\sqrt{3}$$



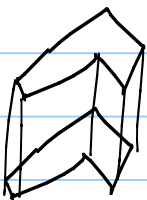
$$V = Bh$$

$$= 54\sqrt{3} \cdot 10 = 540\sqrt{3}$$

$$TSA = 2 \text{ bases} + 6 L, F$$

$$2(54\sqrt{3}) + 6(6 \cdot 10) = 108\sqrt{3} + 360$$

Volumes of Prisms + Cylinders



$$V = Bh$$

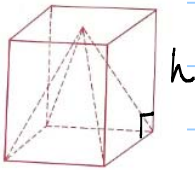
# VOLUMES OF PYRAMIDS AND CONES

## Objectives

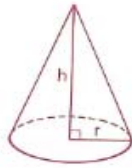
After studying this section, you will be able to

- Find the volumes of pyramids
- Find the volumes of cones
- Solve problems involving cross sections of pyramids and cones

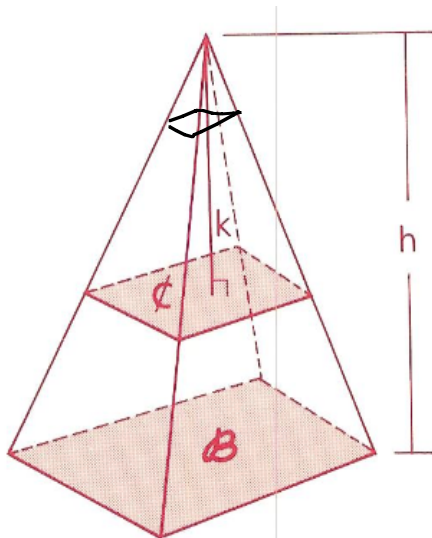
$$V = \frac{1}{3} Bh$$



$$V = \frac{1}{3} (s^2) h$$



$$V = \frac{1}{3} \pi r^2 h$$



$$\frac{\text{area}}{B} = \left( \frac{k}{h} \right)^2$$

$$\sqrt{\frac{A}{B}} = \frac{\sqrt{A}}{\sqrt{B}} = \frac{h}{k}$$

Silent work time → 1-16

