9.5 Volumes of Pyramids

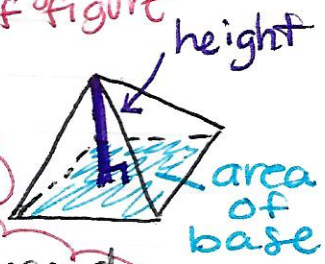
EQ: How can you find the volume of a Pyramid?

Formula: $V = \frac{1}{3}Bh$ or $V = \frac{Bh}{3}$

$\frac{1}{3}$ or divide by 3 — multiply by

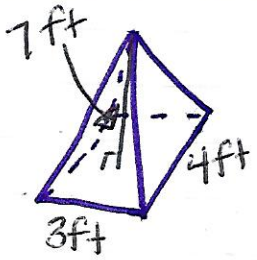
B — area of the base

h — height of figure



* From Video: you can pour water from 3 pyramids into the prism. This is why the volume of a pyramid is 1/3 the volume of a prism.

Example 1:



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

$= \frac{1}{3}(4 \cdot 3) \cdot 7$

$= \frac{1}{3} \cdot 12 \cdot 7$

$= 28 ft^3$

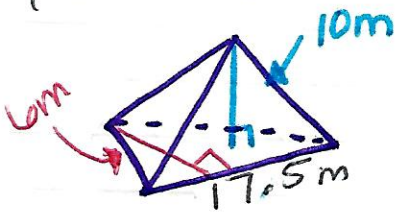
or $V = \frac{Bh}{3}$

$= \frac{4 \cdot 3 \cdot 7}{3}$

$= \frac{12 \cdot 7}{3}$

$= 28 ft^3$

Example 2:



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

$= \frac{\frac{6 \cdot 17.5}{2} \cdot 10}{3}$

$= \frac{\frac{105}{2} \cdot 10}{3}$

$= \frac{52.5 \cdot 10}{3} = \frac{525}{3} =$

$175 m^3$