

Notes 6-8

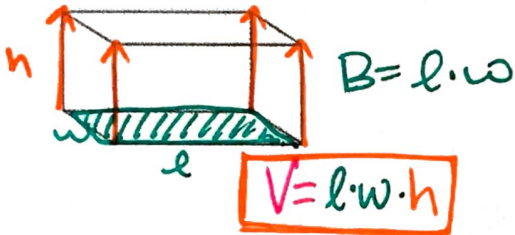
Int 1

Volume of Composite Figures

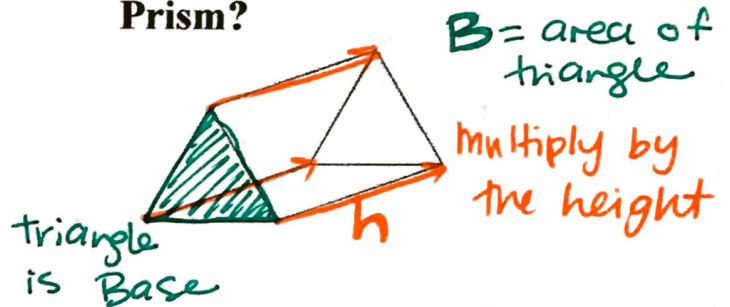
Unit 6

The formula for VOLUME is $V = B \cdot h$

What do we need to know to find the volume of a rectangular prism? $B = \text{area of base}$

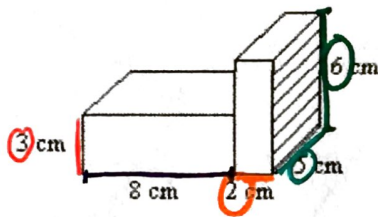


What do we need to know to find the volume of a triangular prism?

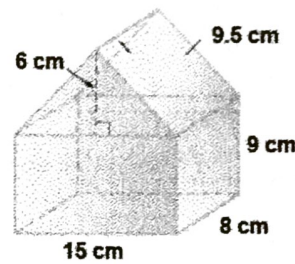


Ex. 1: Find the VOLUME of each of the following composite figures.

A)



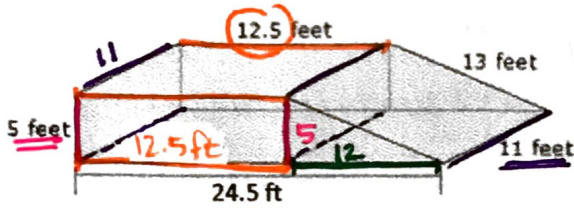
B)



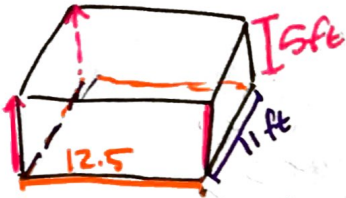
	$3 \cdot 8 \cdot 5 = V$
Vol. of shape #1 =	$V = 120 \text{ cm}^3$
	$2 \cdot 5 \cdot 6 = V$
Vol. of shape #2 =	$V = 60 \text{ cm}^3$
Total Volume = $120 + 60 = 180 \text{ cm}^3$	

	$15 \cdot 8 \cdot 9 = V$
Vol. of shape #1 =	$V = 1080 \text{ cm}^3$
	Area of Δ $\frac{15 \cdot 6}{2} = 45 \cdot 8 = V$
Vol. of shape #2 =	$V = 360$
Total Volume = $V = 1440 \text{ cm}^3$	

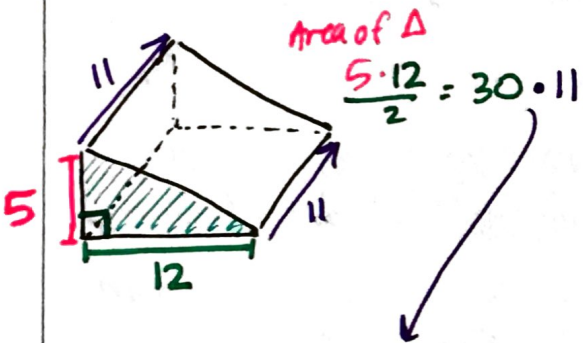
$$24.5 - 12.5 = 12 \text{ ft}$$



$$12.5 \cdot 11 \cdot 5 = V$$



$$\text{Vol. of shape \#1} = V = 687.5 \text{ ft}^3$$

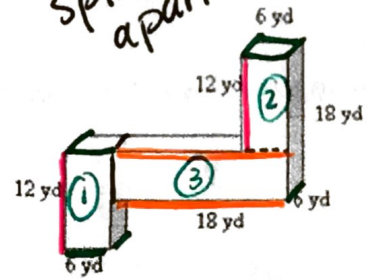


$$\text{Vol. of shape \#2} = 330 \text{ ft}^3$$

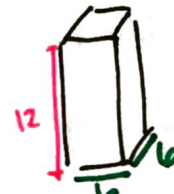
$$687.5 \text{ ft}^3 + 330 \text{ ft}^3$$

$$\text{Total Volume} = 1017.5 \text{ ft}^3$$

Split apart!



#1



$$12 \cdot 6 \cdot 6$$

$$\text{Vol. of shape \#1} = 432 \text{ yd}^3$$

#2



Same as ↑

$$\text{Vol. of shape \#2} = 432 \text{ yd}^3$$



$$6 \cdot 6 \cdot 18$$

$$\text{Vol. of shape \#3} = 648 \text{ yd}^3$$

$$432 + 432 + 648$$

$$\text{Total Volume} = 1512 \text{ yd}^3$$