## 7.- Calculate the Volume of an Object

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# Calculate the Volume of an object

To calculate their volume, we use the following formula.

V = I x w x h, where I is the length, w is the width and h is the height



### Calculate the Volume of an object Wedges and Cylinders

For Triangular Wedges

 $V = \frac{(B \times H)}{2} \times L$ , where **B** is the base of the triangle, **H** is the perpendicular height of the triangle and **L** is the length of the wedge



For Solid Cylinders

 $V = \P \times r^2 \times h$ , where r is the radius of the circular base and h is the height of the cylinder



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# Figuring Volume of a Cube exercise

Formula  $V = S^3$ Calculations  $V = 8'^3$   $V = 8' \times 8' \times 8'$  $V = 512 \text{ ft}^3$ 



# Figuring Volume of a Rectangular Box exercise

Formula  $V = I \times w \times h$ Calculations  $V = 8' \times 6.75' \times 7'$  $V = 378 \text{ ft}^3$ 

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# Figuring Volume of a Triangular Wedge exercise

#### <u>Formula</u>

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$$\boldsymbol{V} = \frac{(\boldsymbol{B} \boldsymbol{x} \boldsymbol{H})}{2} \boldsymbol{x} \boldsymbol{L}$$

#### **Calculations**

$$V = \frac{(4 \text{ ft x } 3.5 \text{ ft})}{2} \times 6 \text{ ft}$$
  
 $V = 42 \text{ ft}^3$ 



### Figuring Volume of a Solid Cylinder exercise

 $\frac{Formula}{V = \P \times r^2 \times h}$ 

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<u>Calculations</u>  $V = 3.14 \times 4^2 \times 9$   $V = 3.14 \times 4 \times 4 \times 9$  $V = 452.16 \text{ ft}^3$ 



## Figuring Volume of a Rectangular Box

Calculate the volume of the box.



## Figuring Volume of a Triangular Wedge

Calculate the volume of the wedge. <u>Formula</u>

$$\boldsymbol{V} = \frac{(\boldsymbol{B} \ \boldsymbol{x} \ \boldsymbol{H})}{2} \times \boldsymbol{L}$$

**Calculations** 



## Figuring Volume of a Solid Cylinder

Calculate the volume of the solid cylinder.

 $\frac{Formula}{V = \P \times r^2 \times h}$ 

**Calculations** 

V = \_\_\_\_

