

Name: \_\_\_\_\_ Date: \_\_\_\_\_

**Volume**

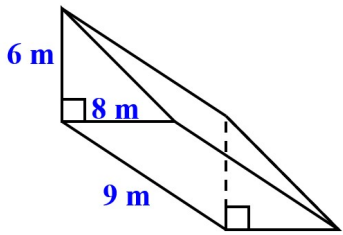
Volume of Prisms & Cylinders

B = area of the base  
h = height of prism

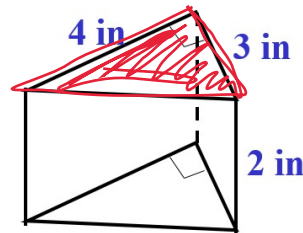
$V = B \cdot h$

Volume = cubed units!

1. V = \_\_\_\_\_



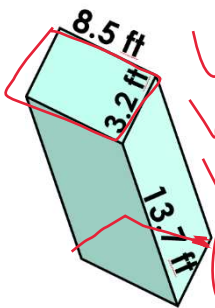
2. V = \_\_\_\_\_



triangular prism

$V = B \cdot h$   
 $V = \frac{1}{2} b \cdot h \cdot l$   
 $V = \frac{1}{2} (3)(4) \cdot 2$   
 $V = 12 \text{ in}^3$

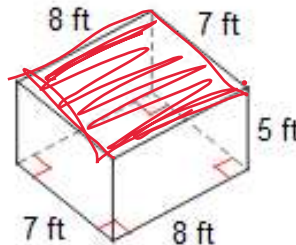
3. V = \_\_\_\_\_



Rectangular Prism

$V = B \cdot h$   
 $V = b \cdot h \cdot l$   
 $V = (8.5)(3.2) \cdot 13.7$   
 $V = 372.64 \text{ ft}^3$

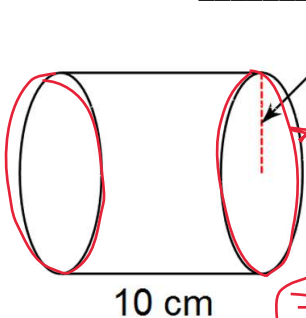
4. V = \_\_\_\_\_



Rectangular Prism

$V = B \cdot h$   
 $V = b \cdot h \cdot l$   
 $V = 7 \cdot 8 \cdot 5 = 280 \text{ ft}^3$

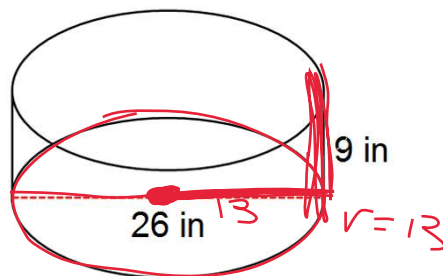
5. V = \_\_\_\_\_



cylinder

$V = B \cdot h$   
 $V = \pi r^2 \cdot h$   
 $V = \pi (5)^2 \cdot 10$   
 $= 250\pi \text{ cm}^3$   
 $= 785.4 \text{ cm}^3$

6. V = \_\_\_\_\_



9 in

26 in

r = 13

Volume of Pyramids and Cones

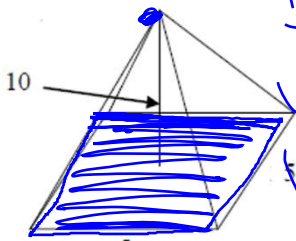
$$V = \frac{1}{3} B \cdot h$$

B → area of base

h → height of pyramid or cone

7. V = \_\_\_\_\_

Square pyramid



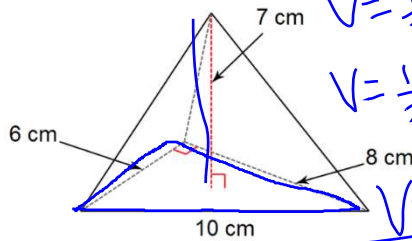
$$V = \frac{1}{3} B h$$

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

$$V = \frac{1}{3} (5)(5)(10)$$

$V = \frac{250}{3} \text{ units}^3$   
 $V = 83.33 \text{ units}^3$

8. V = \_\_\_\_\_ triangular pyramid



$$V = \frac{1}{3} B h$$

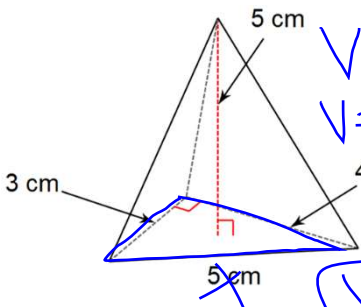
$$V = \frac{1}{3} (\frac{1}{2} b h) h$$

$$V = \frac{1}{3} (\frac{1}{2} (6)(8)(7))$$

$$V = 56 \text{ cm}^3$$

9. V = \_\_\_\_\_

triangular pyramid



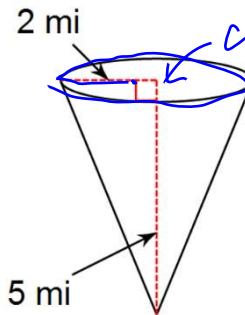
$$V = \frac{1}{3} B h$$

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

$$V = \frac{1}{3} (\frac{1}{2} (5)(3)(4))$$

$$V = 10 \text{ cm}^3$$

10. V = \_\_\_\_\_ Cone



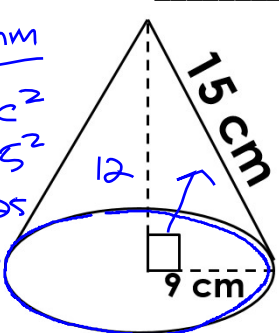
$$V = \frac{1}{3} \pi r^2 h$$

$$V = \frac{1}{3} \pi (2)^2 (5) = \frac{20\pi}{3} \text{ mi}^3$$

$$= 20.94 \text{ mi}^3$$

11. V = \_\_\_\_\_

Cone



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

$$V = \frac{1}{3} \pi (9)^2 (12)$$

$$V = 324 \pi \text{ cm}^3 \text{ (exact)}$$

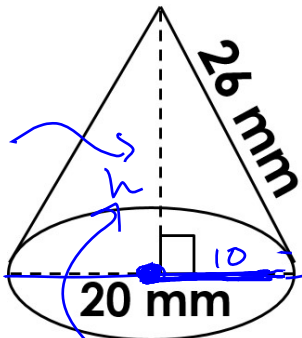
$$V = 1017.88 \text{ cm}^3$$

↳ rounded

Pyth Thm  
 $a^2 + b^2 = c^2$   
 $9^2 + x^2 = 15^2$   
 $81 + x^2 = 225$   
 $x^2 = 144$   
 $x = 12$

12. V = \_\_\_\_\_

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



$$V = \frac{1}{3} \pi (10)^2 (24)$$

$$V = 800 \pi \text{ mm}^3$$

$$= 2513.27 \text{ mm}^3$$

Pyth thm:  
 $10^2 + h^2 = 26^2$   
 $100 + h^2 = 676$   
 $h^2 = 576$   
 $h = 24$