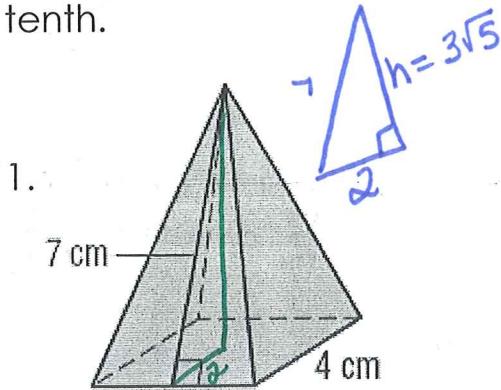


# Basic Surface Area and Volume of Pyramids and Cones- In-Class Practice

## Volume

Find the volume and surface area of the solid. Round to the nearest tenth.

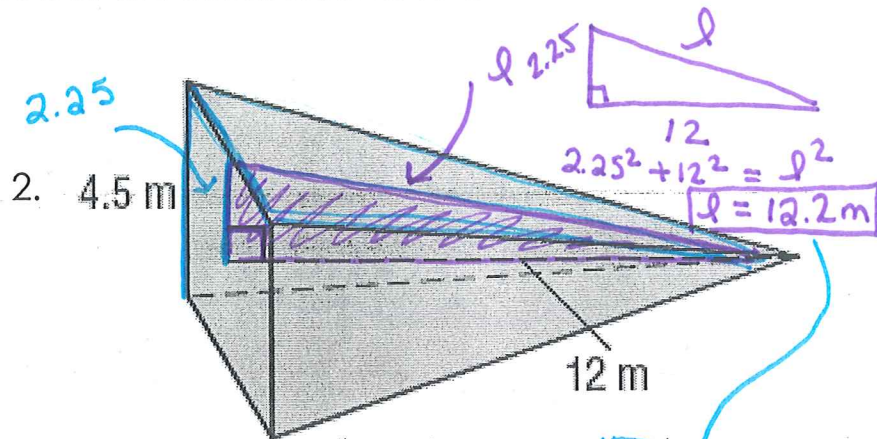


$$SA = 4 \times 4 + 4 \left( \frac{1}{2} 4 \times 7 \right)$$

$$SA = 72 \text{ cm}^2$$

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

$$V \approx 35.8 \text{ cm}^3$$



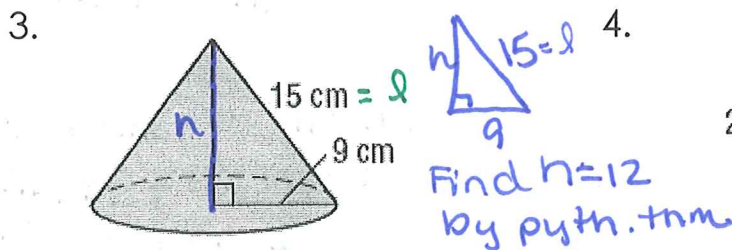
$$SA = 4.5 \times 4.5 + 4 \left( \frac{1}{2} (4.5) (12.2) \right)$$

$$SA = 130.1 \text{ m}^2$$

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

$$V = \frac{1}{3} (4.5 \times 4.5) 12$$

$$V = 81 \text{ m}^3$$



$$SA = \pi r^2 + \pi r l$$

$$SA = \pi 9^2 + \pi 9 \cdot 15$$

$$SA = 678.6 \text{ cm}^2$$

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

$$V = 1017.9 \text{ cm}^3$$



$$SA = \pi 10^2 + \pi 10 \times 26$$

$$SA = 1130.97$$

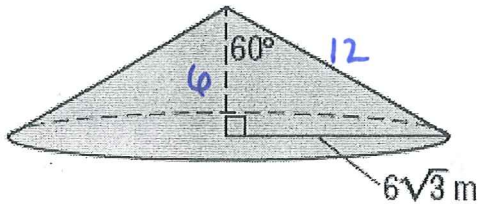
$$SA = 1131.0 \text{ mm}^2$$

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

$$V = 2513.3 \text{ mm}^3$$



5.

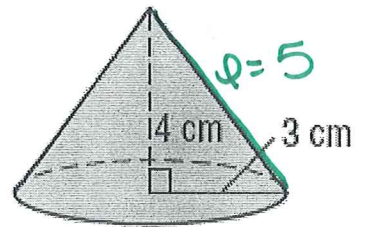


$$SA = \pi (6\sqrt{3})^2 + \pi (6\sqrt{3}) \cdot 12$$

$$SA = 731.01 \text{ m}^2$$

$$V = \frac{1}{3} (\pi (6\sqrt{3})^2) \cdot 6 \quad V = 678.6 \text{ m}^3$$

6.



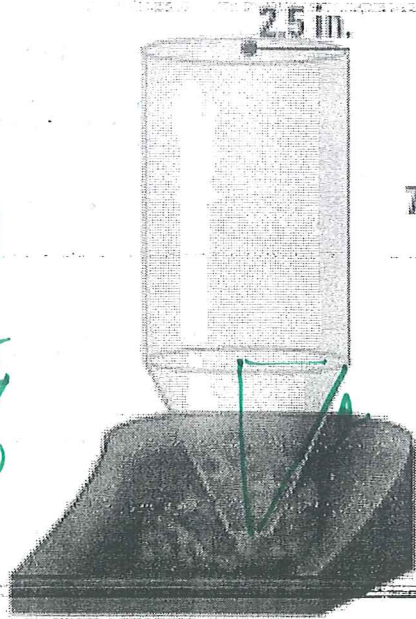
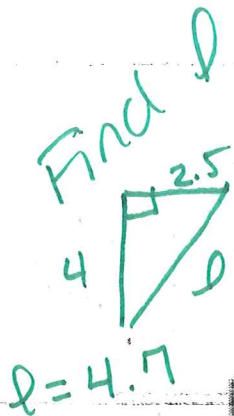
$$SA = \pi (3)^2 + \pi 3 \times 5$$

$$SA = 75.4 \text{ cm}^2$$

$$V = \frac{1}{3} (\pi 3^2) \cdot 4$$

$$V = 37.7 \text{ cm}^3$$

7.



7.5 in. h<sub>g</sub> cyl.

4 in. h cone

SA = cylinder w/o  
one base +  
cone w/o base

only cyl.

$$2\pi r^2 + 2\pi r h$$

$$+ \pi r^2 + \pi r \ell$$

$$V = \text{cyl.} + \text{cone}$$

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

$$V = (\pi (2.5)^2) 7.5 + \frac{1}{3} (\pi 2.5^2) 4$$

$$V \approx 173.4 \text{ in}^3$$

$$SA = \pi r^2 + 2\pi r h + \pi r \ell$$

$$SA = \pi (2.5)^2 + 2\pi (2.5) 7.5$$

$$+ \pi (2.5)^2 + \pi (2.5) 4.7$$

$$SA = 174.4 \text{ in}^2$$