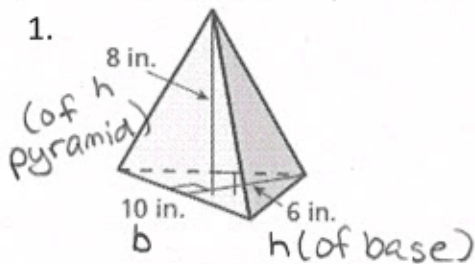


Name Key
Unit 9 Review

Date _____
Period _____

Find the volume of the pyramid.

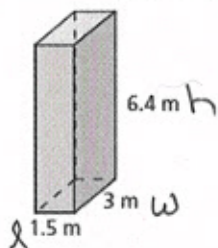


$$V = \frac{1}{3} B h$$
$$V = \frac{1}{3} \left(\frac{1}{2} b h \right) h$$
$$V = \frac{1}{3} \left(\frac{1}{2} \cdot 10 \cdot 6 \right) \cdot 8$$
$$V = \frac{1}{3} (240)$$

Volume = 80 in³

$V = 80 \text{ in}^3$

2. Find the surface area of the prism.



$$l = 1.5 \text{ m}$$
$$w = 3 \text{ m}$$
$$h = 6.4 \text{ m}$$

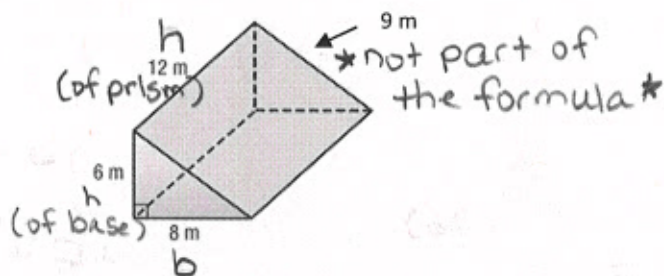
$$SA = 2lw + 2lh + 2wh$$

$$SA = (2 \cdot 1.5 \cdot 3) + (2 \cdot 1.5 \cdot 6.4) + (2 \cdot 3 \cdot 6.4)$$

$$SA = 9 + 19.2 + 38.4$$

$SA = 66.6 \text{ m}^2$

3. Find the volume of the prism.



$$V = B h$$

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

$$V = \left(\frac{1}{2} \cdot 8 \cdot 6 \right) \cdot 12$$

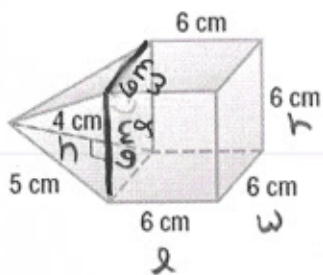
$$V = 24 \cdot 12$$

$V = 288 \text{ m}^3$

Surface Area = 66.6 m²

Volume = 288 m³

4. Find the volume of the composite solid.



Pyramid

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

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

$$V = \frac{1}{3} (6 \cdot 6) \cdot 4$$

$$V = \frac{1}{3} (144)$$

$$V = 48 \text{ cm}^3$$

Cube

$$V = Bh$$

$$V = (lw)h$$

$$V = (6 \cdot 6) \cdot 6$$

$$V = 216 \text{ cm}^3$$

Total Volume

$$V = 48 + 216$$

$$V = 264 \text{ cm}^3$$

5. The volume of a pyramid is 66 cubic meters. The area of the base is 16.5 square meters. Find the height of the pyramid.

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

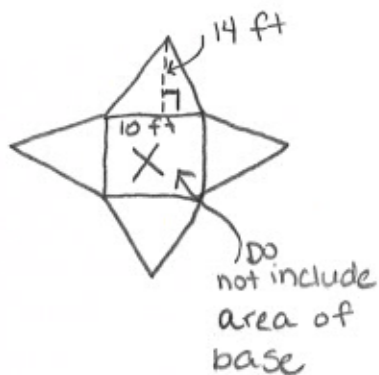
$$66 = \frac{1}{3} (16.5) h$$

$$\frac{66}{5.5} = \frac{5.5 h}{5.5}$$

$$12 \text{ m} = h$$

The height of the pyramid is 12 meters.

6. A tree house is in the shape of a square pyramid with a side length 10 feet and a slant height of 14 feet. The wood used to build the walls of the tree house costs \$5.50 per square foot. What is the cost of the wood for the walls of the tree house?



$$SA = 4 \left(\frac{1}{2} bh \right)$$

$$SA = 4 \left(\frac{1}{2} \cdot 10 \cdot 14 \right)$$

$$SA = 4 (70)$$

$$SA = 280 \text{ ft}^2$$

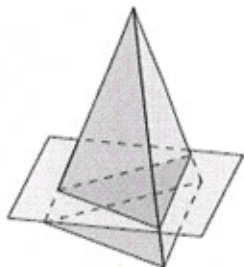
Cost

$$\$5.50 \cdot 280 = \$1540$$

The wood for the walls will cost \$1540.

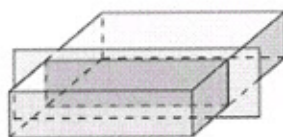
Describe the intersection of the plane and the solid.

7.



Triangle

8.



Rectangle