

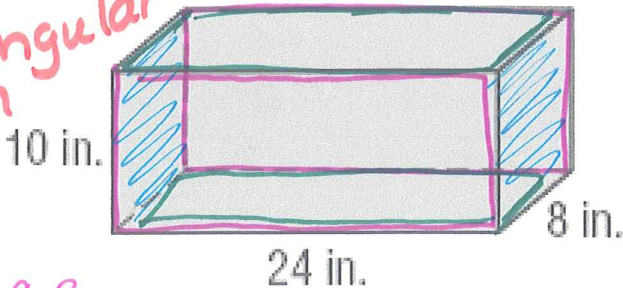
Name: Key Hour: _____

Basic Surface Area and Volume of Prisms Homework

Directions: Find the volume and surface area of the solid, round to the nearest tenth if needed.

1.

Rectangular
Prism



$$SA = \underline{1024 \text{ in}^2}$$

$$V = \underline{1920 \text{ in}^3}$$

Surface Area

$$\begin{array}{r} 2(10 \times 24) \\ 2(8 \times 10) \\ 2(24 \times 8) \\ \hline \end{array}$$

$$1024 \text{ in}^2$$

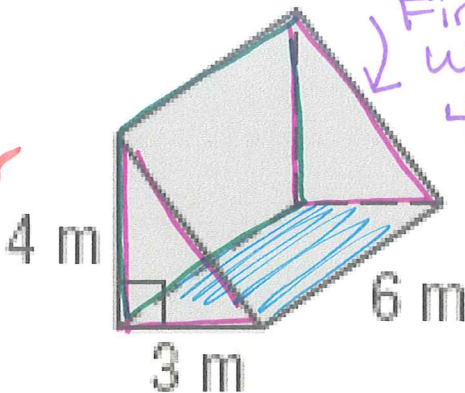
Volume

$$V = 24 \times 8 \times 10$$

$$V = 1920 \text{ in}^3$$

2.

Triangular
Prism



Find this
w/
 $4^2 + 3^2 = x^2$
 $x = 5$

$$SA = \underline{84 \text{ m}^2}$$

$$V = \underline{36 \text{ m}^3}$$

Surface Area

$$\begin{array}{r} 2 \left(\frac{1}{2} 3 \times 4 \right) \\ 3 \times 6 \\ 4 \times 6 \\ 5 \times 6 \\ \hline \end{array}$$

$$SA = 84 \text{ m}^2$$

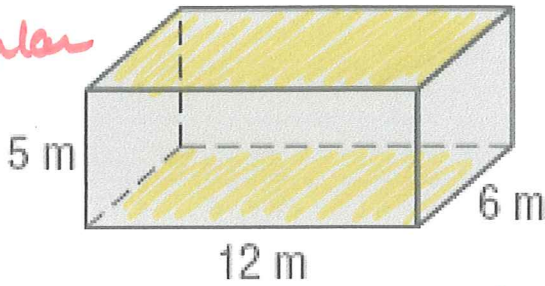
Volume

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

$$V = \frac{1}{2} (4 \times 3) \times 6$$

$$V = 36 \text{ m}^3$$

3.

Rectangular
Prism

$$SA = \underline{324 \text{ m}^2}$$

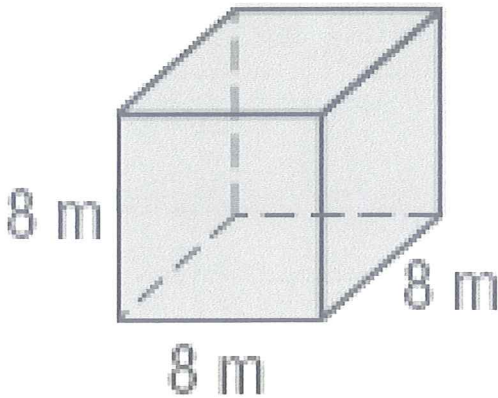
$$V = \underline{360 \text{ m}^3}$$

$$SA = 2(12 \times 5) \\ 2(6 \times 5) \\ 2(12 \times 6) \\ \hline SA = 324 \text{ m}^2$$

$$V = L \times W \times H \\ V = 12 \times 5 \times 6$$

4.

Cube



$$SA = \underline{384 \text{ m}^2}$$

$$V = \underline{512 \text{ m}^3}$$

Surface Area

$$= 6(8 \times 8)$$

$$SA = 384 \text{ m}^2$$

Volume = $L \times W \times H$

$$V = 8 \times 8 \times 8$$