

**Warm up**

February 20

## Linear, Area &amp; Volume Conversions

1. 18.6 yds = 17 meters

$$17\text{m} \times \frac{1.0936 \text{ yd}}{1 \text{ m}} = 18.6 \text{ yd}$$

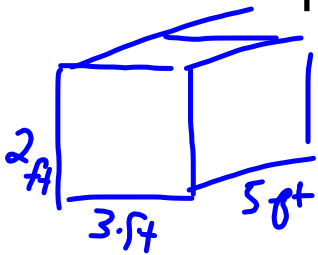
2. 6 square feet = 0.6 square meters

$$6 \text{ ft}^2 \times \left(\frac{1 \text{ yd}}{3 \text{ ft}}\right)^2 \times \left(\frac{1 \text{ m}}{1.0936 \text{ yd}}\right)^2 = 0.6 \text{ m}^2$$

3. 1130.0 cubic feet = 32 cubic meters

$$32 \text{ m}^3 \times \left(\frac{1.0936 \text{ yd}}{1 \text{ m}}\right)^3 \times \left(\frac{3 \text{ ft}}{1 \text{ yd}}\right)^3 = 1130.0 \text{ ft}^3$$

## Volume of a prism....



Find the volume and then convert the answer.

$$V = 2 \times 3 \times 5 \\ = 30 \text{ ft}^3$$

two methods

$$30 \text{ ft}^3 \times \left( \frac{12 \text{ in}}{1 \text{ ft}} \right)^3 = 51840 \text{ in}^3$$

Convert the dimensions then calculate the volume.

$$\left. \begin{array}{l} 2 \text{ ft} \dots 24 \text{ in} \\ 3 \text{ ft} \dots 36 \text{ in} \\ 5 \text{ ft} \dots 60 \text{ in} \end{array} \right\} \begin{array}{l} V = (24)(36)(60) \\ = 51840 \text{ in}^3 \end{array}$$

Class / Homework

Worksheet:

Linear, Area and Volume Conversion