

1. Convert 30 Grams per Liter into Pounds per Gallon.

16 Ounces = 1 Pound      1 Pint = 0.473 Liters  
1 Gallon = 4 Quarts      1 Quart = 2 Pints      1 Ounce = 28.35 Grams

$$\frac{30g}{1L} \cdot \frac{1L}{2835g} \cdot \frac{1lb}{16oz} \cdot \frac{.473L}{1\text{ pint}} \cdot \frac{2\text{ pnt}}{1\text{ quart}} \cdot \frac{4qt}{1\text{ gallon}} = .2501\text{ lb/gallon}$$

2. The scale on a model boat is 5:72. If the model is 9 inches long how long is the actual boat? Give the answer in feet.

$$\frac{5}{72} \times \frac{9}{x} = \frac{5x}{72} = \frac{648}{72}$$

$$x = 129.6$$

$$129.6 \text{ in.} \cdot \frac{1 \text{ ft}}{12 \text{ in}} = 10.8 \text{ ft}$$

3. 85% of what number is 160?

$$\frac{85}{100} = \frac{160}{x} \text{ is } 188 \times \text{ of}$$

$$(.85)(x) = 160$$

4. The ratio of men to women in a lecture hall on campus is 48:45. If there are 15,000 students on campus how many of them are women? Round to the nearest whole number.

$$\frac{48}{93} = \frac{15,000}{x}$$

$$48x = 15,000 \times 93$$

$$48x = 1,395,000$$

$$x = 29,062.5$$