

Convert:

- 1) An elephant weighting 4.5 tons, to pounds

$$\frac{4.5 \text{ tons}}{1} \cdot \frac{2000 \text{ lbs}}{1 \text{ ton}} = 9000 \text{ lbs}$$

- 2) 43296 feet to miles

$$\frac{43,296 \text{ ft}}{1} \cdot \frac{1 \text{ mi}}{5280 \text{ ft}} = 8.2 \text{ miles}$$

- 3) 4 fl oz to cups

$$\frac{4 \text{ oz}}{1} \cdot \frac{1 \text{ cup}}{8 \text{ oz}} = \frac{4}{8} = \frac{1}{2} \text{ cup}$$

- 4) 2 cups to tablespoons

$$\frac{2 \text{ cups}}{1} \cdot \frac{4 \text{ T}}{1/4 \text{ cup}} = \frac{8}{1/4} = 32 \text{ tablespoons}$$

- 5) 3 weeks to days

$$\frac{3 \text{ wks}}{1} \cdot \frac{7 \text{ days}}{1 \text{ wk}} = 21 \text{ days}$$

- 6) 3 weeks to hours

$$\frac{3 \text{ wks}}{1} \cdot \frac{7 \text{ days}}{1 \text{ wk}} \cdot \frac{24 \text{ hrs}}{1 \text{ day}} = 504 \text{ hours}$$

- 7) 1/4 mile to yards

$$\frac{1/4 \text{ mi}}{1} \cdot \frac{5280 \text{ ft}}{1 \text{ mi}} \cdot \frac{1 \text{ yds}}{3 \text{ ft}} = 440 \text{ yds}$$

- 8) If your car emits 30 pounds of carbon dioxide every day, how many tons does it emit in a year?

$$\frac{30 \text{ lbs}}{1 \text{ day}} \cdot \frac{1 \text{ ton}}{2000 \text{ lbs}} \cdot \frac{365 \text{ days}}{1 \text{ year}} = \frac{10950}{2000} = 5.5 \text{ tons/year}$$

- 9) 1 cubic foot is approximately 7.5 gallons. How many gallons would be needed to fill a pool 10 feet long, 8 feet wide, and 6 feet deep?

$$\text{Volume} = l \times w \times h = (10 \text{ ft})(8 \text{ ft})(6 \text{ ft}) = 480 \text{ ft}^3$$

$$\frac{480 \text{ ft}^3}{1} \cdot \frac{7.5 \text{ gal}}{1 \text{ ft}^3} = 3600 \text{ gallons}$$

- 10) A bottle of cough syrup holds 12 fluid ounces. One dose is 1 tablespoon. How many doses are in the bottle?

$$\frac{12 \text{ fl. oz.}}{1} \cdot \frac{1 \text{ cups}}{8 \text{ fl. oz.}} \cdot \frac{4 \text{ tablespoons}}{1/4 \text{ cup}} = \frac{48}{2} = 24 \text{ table spoons}$$

Length

- 1 foot = 12 inches
- 1 yard = 3 feet
- 1 mile = 5,280 feet

Weight

- 1 pound = 16 ounces
- 1 ton = 2000 pounds

Capacity

- 1 cup = 8 fluid ounces
- 1 pint = 2 cups
- 1 quart = 2 pints = 4 cups
- 1 gallon = 4 quarts = 16 cups
- 3 teaspoon = 1 tablespoon
- 4 tablespoons = 1/4 cup

Time

- 1 week = 7 days
- 60 minutes = 1 hour
- 60 seconds = 1 minute
- 24 hours = 1 day