

Metric System

kilogram (kg) – gram (g) – milligram (mg) – microgram (mcg) – liter (L) – milliliter (mL)

$$1 \text{ kg} = 1000 \text{ g}$$

$$1 \text{ g} = 1000 \text{ mg}$$

$$1 \text{ mg} = 1000 \text{ mcg}$$

$$1 \text{ g} = 1,000,000 \text{ mcg}$$

$$1 \text{ L} = 1000 \text{ mL}$$

$$1 \text{ g} = .001 \text{ kg}$$

$$1 \text{ mg} = .001 \text{ g}$$

$$1 \text{ mcg} = .001 \text{ mg}$$

$$1 \text{ mcg} = .000001 \text{ g}$$

$$1 \text{ cub centimeter (cc)} = 1 \text{ milliliter (mL)}$$

Household Measures

ounces (oz) – pound (lb) – teaspoon (tsp or t) – drops (gtt) – tablespoon (Tbsp or T)

Weights

$$16 \text{ oz} = 1 \text{ lb}$$

Liquids

$$1 \text{ tsp} = 60 \text{ gtt}$$

$$1 \text{ Tbsp} = 3 \text{ tsp}$$

$$1 \text{ ounces} = 2 \text{ Tbsp}$$

$$1 \text{ glass} = 8 \text{ ounces}$$

$$1 \text{ measuring cup} = 8 \text{ ounces}$$

$$1 \text{ teacup} = 6 \text{ ounces}$$

$$16 \text{ ounces} = 1 \text{ pint}$$

$$2 \text{ cups} = 1 \text{ pint}$$

$$2 \text{ pints} = 1 \text{ quart}$$

$$4 \text{ quarts} = 1 \text{ gallon (gal)}$$

Between Metric and Household

| <u>Metric</u> | | <u>Household</u> |
|----------------------|---------------|------------------|
| | Liquid | |
| 1 mL | = | 15 gtt |
| 5 mL | = | 1 tsp |
| 15 mL | = | 1 Tbsp |
| 30 mL | = | 1 ounce |
| 180 mL | = | 1 teacup |
| 240 mL | = | 1 glass |
| | Weight | |
| 1 kg | = | 2.2 lb |
| 30 g | = | 1 oz |
| 454 g | = | 1 lb |
| | Length | |
| 2.5 centimeters (cm) | = | 1 inch (in) |

To change from Fahrenheit to Celsius: Subtract 32 from F° and divide the result by 1.8

To change from Celsius to Fahrenheit: Multiply C° by 1.8 and add 32 to the result.

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ex. A patient is to receive
15 mL of Kefurox. How
many teaspoons should you
administer?

$$5 \text{ mL} = 1 \text{ tsp}$$

$$15 \text{ mL} \times \frac{1 \text{ tsp}}{5 \text{ mL}} = 3 \text{ tsp}$$

ex. A patient weighs 60 kg.
How many pounds is this?

$$1 \text{ kg} = 2.2 \text{ lbs.}$$

$$60 \text{ kg} \times \frac{2.2 \text{ lbs}}{1 \text{ kg}} = 132 \text{ lbs.}$$