

Conversions

To do any conversion, first write your "given". Then, multiply your given by a fraction. On the top of the fraction (the numerator) put the unit that you want to convert to. On the bottom of the fraction, put the unit that you want to get rid of (the same unit that's in the "given"). For the numbers in the fraction, use the numbers in the equivalency for the units.

e.g. Consider the following:

An equivalency: 1 inch = 2.54 cm

a) Convert 20cm into inches:

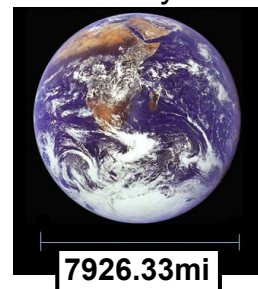
b) Convert 25in into cm.

e.g Consider the following:

An equivalency: 1mile = 1.61km

a) The distance from Montreal to Toronto is 542.4km. How many miles is this?

b) The diameter of the Earth is 7 926.33 miles. How many km is this equal to?



More Problems:

$$1 \text{ gallon} = 3.785\text{L}$$

1. How many litres will a 34-gallon wheeled garbage bin hold?



2. A typical municipal water tower usually holds enough water to supply one day's worth of water for the community it serves; that amount is often somewhere around 5 million liters. How many gallons is this equal to?



$$1 \text{ Tbsp} = 14.7868\text{mL}$$

$$1 \text{ cup} = 237 \text{ mL}$$

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

3. In Canada, the ICAO (Civil Aviation Organization), has set a restriction on the size of containers of liquids, food, and personal items in carry-on luggage. All containers of liquids, food, and personal items must be 100mL or less (volume) and 100g or less (mass). In addition, all containers must fit in one clear, closed, resealable plastic bag no more than 1 litre in capacity.

a) How many Tablespoons are in 100mL (the maximum volume per container allowed)?

b) How many cups are equal to 1L (the maximum total volume allowed per person)?

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

$$1\text{ cup} = 237\text{ mL} = 8\text{oz}$$

4. Water makes up about 60 percent of your body weight. Every system in your body depends on water. Water flushes toxins out of vital organs and carries nutrients to your cells.

Even mild dehydration can drain your energy and make you tired.

How much water do you need?

Every day you lose water through your breath, perspiration, and urine. For your body to function properly, you must drink water.

The Institute of Medicine states that an adequate intake (AI) of water a day is:

for men: 3 litres a day **for women: 2.2 liters a day**

- a) Determine how many ounces (oz) of water i) a man, and ii) a woman should drink every day.

- b) How many cups of water should i) a man and ii) a woman drink every day.



$$1\text{oz} = 29.574\text{mL}$$

5. A customer buys a 1.75L bottle of gin to make Long Island Iced Teas at a party. The recipe calls for 2oz gin per drink, and the customer is wondering how many oz of gin are in the bottle so she can figure out how many drinks she can make.

a) Calculate how many oz of gin are in the 1.75L bottle.



b) How many drinks can be made?

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

$$1\text{ cup} = 16\text{ Tbsp}$$

6. A recipe for cookies calls for 2.5 tsp of vanilla. If you plan to make 30 batches of cookies for a bake sale, then how many cups of vanilla will you need to buy? (need $2.5\text{ tsp} \times 30$)



$$1 \text{ kg} = 2.2 \text{ lb}$$

7. An old recipe of your mom's calls for 5 pounds of ground beef. When you go to the grocery store, you find that kilograms is the unit used to measure quantities of meat. Convert 5 lb to kg.

$$1 \text{ m} = 100 \text{ cm}$$

$$1 \text{ in} = 2.54 \text{ cm}$$

8. The tallest living man in the world, Sultan Kösen, is 8ft 3in tall.

How many metres tall is he?

<http://www.guinnessworldrecords.com/world-records/size/tallest-man-living>

$$1 \text{ yard} = 0.9144 \text{ m}$$

9. If someone swims 100 laps of a 50yard pool, then how many km has she swam?

10. P.K. Subban (Go Habs!) weighs 215.6 lbs. How many grams is this equal to?

