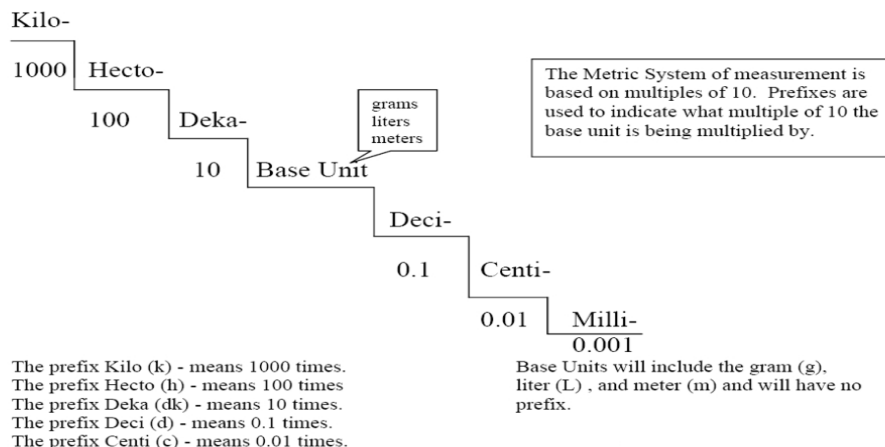


Metric Conversion: Stair-Step Method



The prefix Kilo (k) - means 1000 times.
 The prefix Hecto (h) - means 100 times.
 The prefix Deka (dk) - means 10 times.
 The prefix Deci (d) - means 0.1 times.
 The prefix Centi (c) - means 0.01 times.

$$\underline{1 \text{ mL} = 1 \text{ cm}^3}$$

The prefix Centi (c) - means 0.01 times.
 The prefix Milli (m) - means 0.001 times.

To use the Stair-Step method, find the prefix the original measurement starts with. (ex. *milligram*) If there is no prefix, then you are starting with a base unit. Find the step which you wish to make the conversion to. (ex. *decigram*) Count the number of steps you moved, and determine in which direction you moved (left or right). The decimal in your original measurement moves the same number of places as steps you moved and in the same direction. (ex. *milligram* to *decigram* is 2 steps to the left, so 40 *milligrams* = .40 *decigrams*) If the number of steps you move is larger than the number you have, you will have to add zeros to hold the places. (ex. *kilometers* to *meters* is three steps to the right, so 10 *kilometers* would be equal to 10,000 *meters*)

That's all there is to it! You need to be able to count to 6, and know your left from your right!

1) Write the equivalent measurement: (.5 pt each)

- | | | |
|------------------------------------|----------------------|----------------------------------|
| a) 5 dm = _____ m | b) 4 mL = _____ L | c) 8 g = _____ mg |
| d) 9 mg = _____ g | e) 2 mL = _____ L | f) 6 kg = _____ g |
| g) 4 cm = _____ m | h) 12 mg = _____ g | i) 6.5 cm ³ = _____ L |
| j) 7.02 mL = _____ cm ³ | k) .03 hg = _____ dg | l) 6035 mm = _____ cm |
| m) .32 m = _____ cm | n) 38.2 g = _____ kg | |

Answers:

a) 0.5	b) 0.004	c) 8000	d) 0.009	e) 0.002
f) 6000	g) 0.04	h) 0.012	i) 0.0065	j) 7.02
k) 30	l) 603.5	m) 32	n) 0.038	