

Metric System Notes and Practice

What is the metric system?

- Metric system is based on the power of 10.
- Meter is a measure of length
- Gram is a measure of mass
- Liter is a measure of liquid volume
- Celsius is a measure of temperature

Prefixes

• Kilo (k)	1000	10^3
• Hecto (h)	100	10^2
• Deka (da)	10	10^1
• Base Unit	1	10^0
• meter(m)	liter(L)	gram(g)
• Deci (d)	1/10	10^{-1}
• Centi (c)	1/100	10^{-2}
• Milli (m)	1/1000	10^{-3}

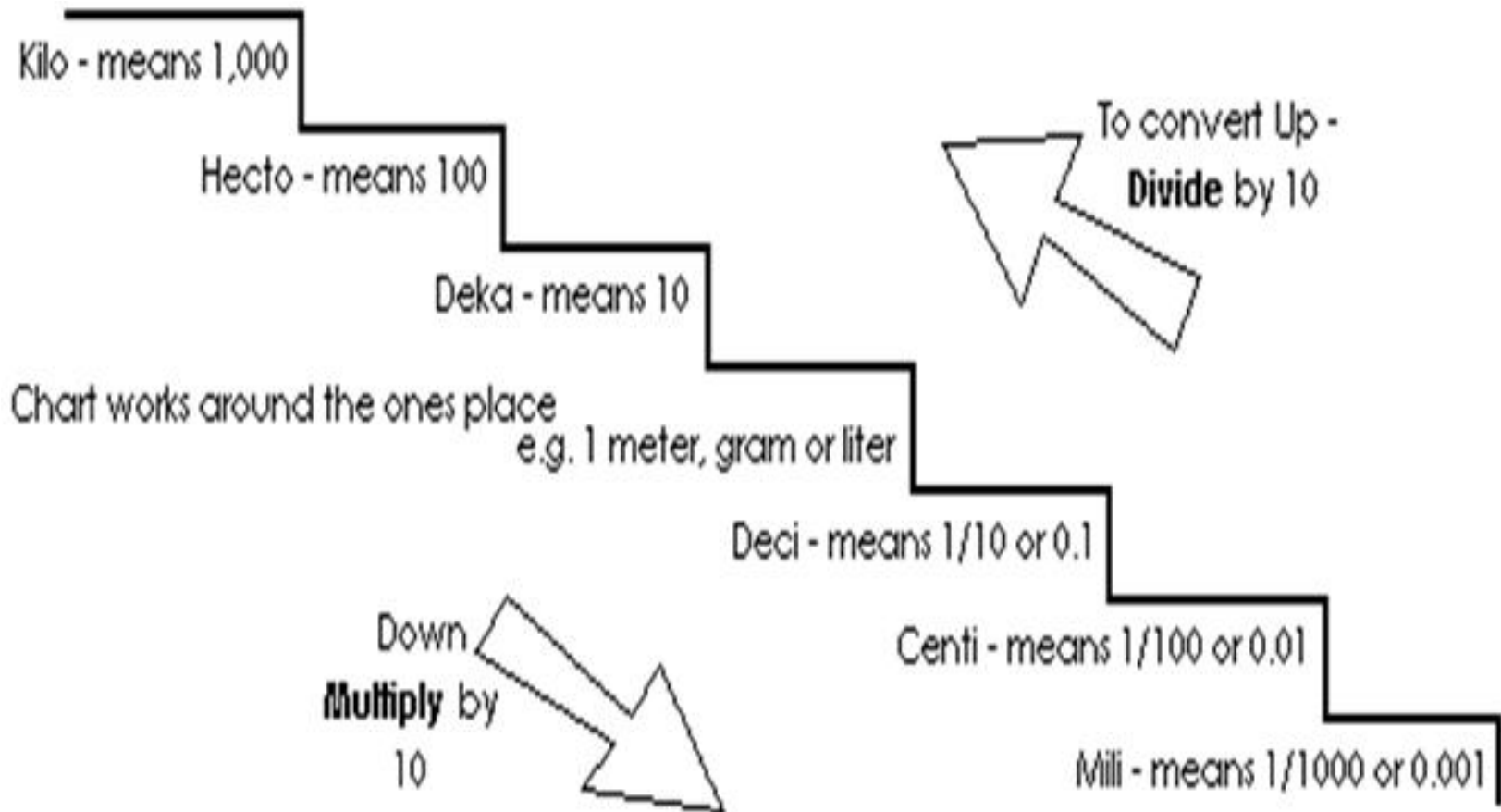
Remember

King	kilo
Henry	hecto
Died	deca
Unexpectedly	base unit
Drinking	deci
Chocolate	centi
Milk	milli

Some things to remember when converting units.

- To convert from a larger to smaller metric unit you always multiply moving the decimal place to the right
- To convert from a smaller to larger unit you always divide moving the decimal place to the left

For every step upward (or to the left) on the chart you are dividing by 10 or move the decimal one place to the left..



For every step downward on the chart you are multiplying by 10 or move the decimal one place to the right..

- ***Example:***

***To convert 2 kilometers to meters you move 3 steps down on the chart so you move the decimal 3 places to the right
2 kilometers = 2000 meters***

- ***Example:***

To convert 345 millimeters to meters you move 3 steps up on the chart so you move the decimal 3 places to the left

$$***345\text{ mm} = 0.345\text{ m}***$$

Practice

1. 3 meters = _____ centimeters
2. 40 liters = _____ deciliters
3. 600 milligrams = _____ grams
4. 5 kilometers = _____ hectometers
5. 70 centimeters = _____ meters
6. 900 deciliters = _____ milliliters
7. John's pet python measured 600 centimeters long. How many meters long was the snake?
8. Faith weighed 5 kilograms at birth. How many grams did she weigh?
9. Jane has a ruler that is 300 millimeters long. How long is that in centimeters?