METRIC PREFIXES AND CONVERSIONS

PREFIX	POWER OF TEN
tera (T)	10^{12}
------------	10^{11}
------------	10^{10}
giga (G)	10^{9}
------------	10^{8}
------------	10^{7}
mega (M)	10^{6}
------------	10^{5}
------------	10^{4}
kilo (k)	10^{3}
hecto (h)	10^{2}
deka (da)	10^{1}
Base Unit (m,g,s, mole, etc.)	10^{0} (1)
deci (d)	10^{-1}
centi (c)	10^{-2}
milli (m)	10^{-3}
------------	10^{-4}
------------	10^{-5}
micro (μ)	10^{-6}
------------	10^{-7}
------------	10^{-8}
nano (n)	10^{-9}
------------	10^{-10}
------------	10^{-11}
pico (p)	10^{-12}

Converting from a <u>larger to a smaller</u> metric unit means moving the decimal point to the right the same number of places as the prefixes or powers of 10 you move through on the chart.

Converting from a <u>smaller to a larger</u> metric unit means moving the decimal point to the left the same number of places as the prefixes or powers of 10 you move through on the chart.

By combining the fundamental SI units, we obtain measurement units used to express other quantities. The measurements used to express measurememts like velocity, area, volume, density, force, etc. are called **derived units.**

Example 1: Convert 6.5 Mg to micrograms (μg).

Example 2: Convert 7.8 nm to kilometers (km).