Metric Conversions: Last Stop

**Procedure for metric conversions with conversion factors:**

Example: convert 27 km to m

* STEP 1: Write the given measurement from the problem

Example: 27 km

* STEP 2: Set up the units of the conversion factor. The units to cancel belong in the denominator, the unit to convert to belongs in the numerator.

Example: 27 km \* ( m) =

( km)

* STEP 3: Write in the numbers of the conversion factor.

STEP 3A: Write a 1 on the side of the fraction with a prefix

STEP 3B: From memory or from our chart, write the factor of 10 for the prefix on the side of the fraction ***without*** a prefix.

103 goes here because k = 103

Example: 27 km \* ( 103 m) =

( 1 km)

The 1 goes here, because that’s where the prefix “k” is.

STEP 4: Multiply and simplify

Example: 27 ~~km~~ \* ( 103 m) = 27 x 103 m = 2.7 x 104 m

( 1 ~~km~~)

…and remember these:

M = 106

k = 103

c = 10-2

m = 10-3

µ = 10-6