THE METRIC SYSTEM: CONVERTING WITHIN

Calculations within the metric system are based on powers of 10. Most metric conversions can be done by relocating the decimal point.

The most common metric prefixes are arranged in order from the largest to the smallest, accompanied by their numerical interpretations:

| kilo | hecto | deka | base unit | deci | centi | milli |
|------|-------|------|-----------|----------------|-----------------|------------------|
| (k) | (h) | (da) | (g,m,l) | (d) | (c) | (m) |
| 1000 | 100 | 10 | 1 | <u>1</u> 10 | <u>1</u> 100 | <u>1</u> 1000 |

The main metric units are the meter (length), liter (volume), and gram (mass), which are represented below by the symbol "u" for unit:

| <u>k</u> ilo | <u>h</u> ecto | <u>d</u> ek <u>a</u> | <u>u</u> | <u>d</u> eci | <u>c</u> enti | <u>m</u> illi | |
|-----------------|---------------------------|----------------------|---------------|------------------|------------------|---------------|--|
| " <u>K</u> athy | <u>/ h</u> ad <u>d</u> ou | ıbts <u>u</u> ntil | l <u>D</u> ud | lly <u>c</u> onv | erted <u>m</u> e | etrics!" | |

Each term in this list is ten times the value of the next term to the right.

EXAMPLES:

| 1. Convert 0.85 kiloliters to hectoliters. (liters) k h da l d c m | 3. Convert 3 dekameters to centimeters. k h da m d c m | | |
|--------------------------------------------------------------------------|--------------------------------------------------------------------------|--|--|
| answer: 8.5 hL | answer: 3000 cm | | |
| 2. Convert 785 milligrams to grams. (grams) k h da g d c m | 4. Convert 5800 meters to kilometers. (meters) k h da m d c m K | | |
| answer: 0.785 g | answer: 5.8 km | | |