

CEM – 101 Unit 1
Metric Prefixes and Practice Problems

kilo- **1,000 x bigger than base**
(k)

$$\begin{array}{l} 1,000 \text{ grams} = 1 \text{ kilogram (kg)} \\ 1,000 \text{ meters} = 1 \text{ kilometer (km)} \end{array}$$

centi- **100 x smaller than base**
(c)

$$\begin{array}{l} 1 \text{ gram} = 100 \text{ centigrams} \\ 1 \text{ meter} = 100 \text{ centimeters} \end{array}$$

milli- **1000 x smaller than base**
(m)

$$\begin{array}{l} 1 \text{ gram} = 1,000 \text{ milligrams} \\ 1 \text{ meter} = 1,000 \text{ millimeter} \end{array}$$

Convert the following:

- | | |
|-------------------|--------------------|
| a. 158 L to mL | b. 35.2 cm to km |
| c. 0.059 kg to g | d. 23.7 mm to m |
| e. 425 m to cm | f. 465 m to km |
| g. 5,890 mg to cg | h. 92,000 mg to kg |
| i. 30.9 cL to L | j. 35.1 cm to m |
| k. 44,300 mg to g | l. 890 cm to mm |