

**General Chemistry**  
**Mr. MacGillivray**  
**Sample Quiz #3:**  
**Dimensional Analysis I**

Only one of the conversion factors in each pair is correct. Circle the correct conversion factor.

$$\frac{1000 \text{ mL}}{1 \text{ L}}$$

or

$$\frac{1 \text{ mL}}{1000 \text{ L}}$$

$$\frac{1 \text{ kg}}{1000 \text{ g}}$$

or

$$\frac{1000 \text{ kg}}{1 \text{ g}}$$

$$\frac{100 \text{ cm}^3}{1 \text{ L}}$$

or

$$\frac{1000 \text{ cm}^3}{1 \text{ L}}$$

- Perform each of the following conversions using dimensional analysis.
- You must show work.
- The method used must be dimensional analysis as shown in class and in the text.
- Round answers to the correct number of significant figures.

Convert 138 m to cm

Convert 138 m to km

$3.89 \times 10^4 \text{ L}$  to mL