<u>**CONCEPT:**</u> SPECIFIC GRAVITY
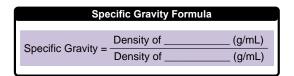
● **Specific gravity** represents the density of a _____ divided by the density of _____ at the same temperature.

     □ Since the units cancel out, specific gravity is _____.

     □ **NOTE:** As the temperature changes, the density of water changes.

Densities of Water	
Temperature (ºC)	**Density**
-30.0º	0.98385
0.00º	0.99987
3.98º	1.00000
10.0º	0.99975
25.0º	0.99700
100º	0.95865

Specific Gravity Formula

$$\text{Specific Gravity} = \frac{\text{Density of } \underline{\hspace{2cm}} \text{ (g/mL)}}{\text{Density of } \underline{\hspace{2cm}} \text{ (g/mL)}}$$

EXAMPLE: If the specific gravity of sulfuric acid is 1.27 at room temperature (25ºC), what is its mass (in mg) for 2.3 L?

PRACTICE: What is the specific gravity of lithium metal (in g/mL) at 10.0ºC if a cube measures 0.82 cm x 1.45 cm x 1.25 cm and has a mass of 0.794 g?

PRACTICE: Ethyl alcohol has a specific gravity of 0.7892 at 10ºC. What is the volume of 250 g of ethyl alcohol?