

### **Pre-lab Questions – Experiment 1: Scientific Measurements**

*Write answers to the following questions on this page and bring it with you to lab. Make sure to consider significant figures in your answers.*

1. You have a sample of an alloy that contains only gold and silver. You put 25.00 mL of water into a graduated cylinder. When you submerge the alloy sample into the water, the level rises to 28.66 mL. If the mass of the alloy sample is 51.89 g, what is the density of the alloy?

2. Pure gold has a density of  $19.3 \text{ g/cm}^3$ , and pure silver has a density of  $10.5 \text{ g/cm}^3$ . Using your calculated density from part 1, what are the percentages of gold and silver in the alloy?