**Chemistry Sept 2018 WS2 Uncertainties Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Due: next class**

1. Add the following measurements. (4)
   1. (12.5 + 0.3) mL + (28.8 + 0.5) mL = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. (28.5 + 0.8) mL + (8.8 + 0.5) mL = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Subtract the following measurements. (6)
   1. (32.5 + 0.3) mL - (18.8 + 0.5) mL = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. (48.5 + 0.7) mL - (28.8 + 0.5) mL = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   3. (942.55 + 0.05) mL - (208.57 + 0.06) mL = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Multiply (28.51 + 0.05) mL x (38.82 + 0.04) mL (3)

1. Divide (105.00 + 0.04)g ÷ (25.4 + 0.3) mL (3)
2. An irregular object that weighs (18.62±0.05)g is placed into a graduated cylinder that contains (54.3±0.5)mL of water. The water level appears to rise to (63.6±0.5)mL. Find the density of the object. Include units and the absolute uncertainty of the final answer. Show all your work. (4)