

Name \_\_\_\_\_ Section \_\_\_\_\_ TA \_\_\_\_\_

1. If your class data for the density of Coke came out to be  $1.032178 \pm 0.024915$ , how should you report your results to the correct number of significant digits?
2. Give an example of a systematic error that could have affected the density results in Experiment 1.
3. A clear liquid is dispensed from a burette into a clean beaker and then weighed. If the initial volume reading on the burette is 14.01 ml, the final volume reading is 39.59 ml, and the mass of the sample is 33.8168 g, which of these liquids is it most likely to be?

<u>Liquid</u>	<u>Density</u>
Ethanol	0.789 g/ml
Methanol	0.7918 g/ml
Water	0.9982 g/ml
Trichloroethane	1.336 g/ml
4. How would our calculated density of Coke in Part 1 of Experiment 1 have been different if instead of always weighing 5 ml of sample, we had weighed 5 ml of sample from a volumetric pipette, 10 ml from a graduated cylinder, and 15 ml from a burette?