CH 221
Sample Quiz #1 Name: _____ Lab Section: _____

Be sure to show all work, use the correct number of significant figures, circle final answers and use correct units in all problems.

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1. Calculate these expressions. Include the correct number of significant figures and units in the answer. (4 points)

   (9.994 g - 8.33 g) / (1.44 cm^3 – 0.536 cm^3) _____

   (9.16 * 10^{+3} mL) * (2.3411 * 10^{-6} g) / 12.001 * 10^{-3} g _____

2. Convert 892.0 ˚C to K. (4 points)

3. Density Problem (8 points)

   a. Calculate the density of "substance A" when its mass = 11.22 g and its volume is 0.244 cm^3. Express the density in units of g / mm^3.

   b. It costs 10.79 cents to make 11.4 cm^3 of "substance A". Calculate how much it would cost to make 8.91 pounds of "substance A" in units of $. (1 pound = 453.59237 g; 100 cents = 1 $)

4. Differentiate between chemical and physical properties. Give at least one example of each. (4 points)