

Chemistry 236 -- Quiz 1
September 5, 2007 — Statistics Basics

Pledge and signature:

Note: If you want your paper returned folded (i.e., score concealed), please print your name on the back.

1. (2) Consider the number 7. If this represents a rounded experimental result, what are its absolute and percent uncertainties?

2. (3) A pressure is measured to be 654.15 Torr and is estimated to be uncertain by 0.35 %. Using the 10% rule, state this pressure and its uncertainty.

3. (5) Marge Inovera measures a quantity 23 times and obtains an average and a sum of squared residuals. If the latter is 984.155,
 - a. Give Marge's estimated variance, standard deviation, and standard deviation in the mean. (Give precision commensurate with the provided information.)

 - b. Use the 10% rule to restate the latter two values.

4. (2) State the following quantities unambiguously to 5 significant figures:
 - a. 12345678.9
 - b. 66.122500

5. (4) What would be the effect on the class average and variance on this quiz if I were to
 - a. Subtract 5 points from all scores;

 - b. Decrease all scores by 25%?