Chemistry 105-Fundamental Chemistry Name _____.
Quiz 1A-Wednesday, 24 September 1996 Laboratory Section _____.

Answer in the space provided. Show work whenever possible. Use the factor label method whenever possible. If you have a question raise your hand. If you finish early you may leave but do so quietly without disturbing others around you. Use a pen. Good luck.

1) (5 pts) Explain how and why each and every measurement gives a numerical result that has three aspects.

2) (5pts) _____ is the study of the properties and interactions of matter. Matter is found in two principle forms, either ionic or _____. Matter that is ionic is made up of _____, which are positively charged, and _____ which bear a negative charge. Together, these ions combine in definite whole number ratios to form _____.

3) (4pts) How many protons, neutrons, and electrons are contained in each of the following atoms or ions? Indicate the correct number of each in the spaces provided. In the space provided below each element or ion **PRINT** the proper name.

$^{55}_{25}Mn^{3+}$	$^{35}_{17}Cl$
p _____	_____
e _____	_____
n _____	_____
_____	_____

6) Compute the numerical answer for each question below. Make sure you give your answer with the correct number of significant figures and the proper abbreviation for units and feel free to use scientific notation if you need to. Show your work.

a) (3pt) $(6.531 \times 10^{-13})(6.02 \times 10^{23}) \div [(435) + (2.0000)] =$

b) (3pts) How many grams of solute would be necessary to prepare a 500.0 mL solution of 0.05 *M* NaCN.

c) (5pts) Calculate the amount of moles in 1.0μg of progesterone, $C_{21}H_{30}O_2$, a female sex hormone.