Chem 1014
In-Class Problem Set #6
InClass September 27, 1999
Fall 1999

Name_____
TA Name _____
Lab Section #_____

1. How many protons and electrons in each of the following?

   a) Pt _____ _____

   b) P^{-3} _____ _____

   c) Ge^{+2} _____ _____

2. How many protons, neutrons and electrons in each of the following?

   a) $^{19}_{9}F$ _____ _____ _____

   b) $^{32}_{16}S^{2-}$ _____ _____ _____

3. Complete the following table.

Symbol	# protons	# neutrons	# electrons	charge
$^{96}_{42}Mo$				
	50	69		+2
Kr		47		
		45	36	2-

4. Express each of the following as either a decimal number or in standard scientific notation.

   a) 2,200,000

   b) 8.900×10^{-6}

   c) 4.2389×10^{6}

   d) 602,300,000,000,000,000,000,000

   e) 0.00005670

   e) 3.56

5. Perform the following operations and report your answer in exponential notation.

a) $(3.2 \times 10^{4})(2.8 \times 10^{3}) =$

b) $(4.67 \times 10^{-5})(1.04 \times 10^{-8}) =$

c) $\dfrac{1.04 \times 10^{8}}{(6.81 \times 10^{-3})} =$

d) $\dfrac{3.42}{(8.45 \times 10^{-2})} =$

e) $(1.31 \times 10^{5}) + (1.04 \times 10^{4}) =$

f) $(3.86 \times 10^{-3}) + (4.29 \times 10^{-2}) =$

g) $(4.25 \times 10^{-11}) - (2.56 \times 10^{-7}) =$

h) $(7.33 \times 10^{5}) - (5.18 \times 10^{4}) =$