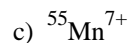
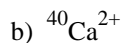
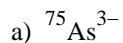


Name _____

1. How many protons, neutrons, and electrons are contained in each of the following ions? [5 pts]



p _____

p _____

p _____

n _____

n _____

n _____

e _____

e _____

e _____

2. Name the following compounds. [5 pts]

Formula	Name
MgCl ₂	
Rb ₂ CO ₃	
N ₂ O ₄	
Cr(SO ₄) ₃	
PF ₅	

3. Write formulas for the following compounds: [4 pts]

Name	Formula
ammonium sulfide	
strontium hydroxide	
manganese(II) oxide	
selenium hexafluoride	

4. Name the group or family. [4 pts]

a) Calcium (Ca) is an _____ metal.

b) Chlorine (Cl) is a member of the _____ family.

c) Krypton (Kr) is a _____ gas.

d) Rubidium (Rb) is an _____ metal.

5. **True or False.** [6 pts]

- a) The formula $C_{17}H_{35}COOH$ is an empirical formula.
- b) Atomic mass is based on the ^{12}C standard.
- c) A cation is an ion with a net negative charge.
- d) PO_4^{2-} is the phosphate ion.
- e) The mass of a neutron is several orders of magnitude greater than the mass of a proton.
- f) Avogadro's number is 6.022×10^{-23} particles/mole.

6. The imaginary element X has the following natural abundances and isotopic masses. What is the **average atomic mass** of X? [4 pts]

Isotope	Isotope mass	Abundance
$^{50}_{24}X$	49.9461 amu	5.000%
$^{52}_{24}X$	51.9405 amu	60.00%
$^{53}_{24}X$	52.9407 amu	35.00%

7. Aluminum has a density of 2.7 g/cm^3 . Convert this density to units of **lbs/ft³**. [1 lb = 453.6 g, 1 in = 2.54 cm]
[4 pts]