

* I-2 ____C ____NC
** III-1 ____C ____NC

Chemistry 151
Worksheet 2

Name: _____

*A. (1.0 pt.) Determine the number of moles of K in 62.1g of K. (at. Wt. K=39.1amu)

B. (2.4 pts.) Indicate the number of protons, electrons, and neutrons for each of the following atoms or ions.

**1. $^{56}_{26}\text{Fe}$ p = _____ e = _____ n = _____

2. $^{226}_{88}\text{Ra}$ p = _____ e = _____ n = _____

3. $^{70}_{31}\text{Ga}^{3+}$ p = _____ e = _____ n = _____

4. $^{35}_{17}\text{Cl}^{-}$ p = _____ e = _____ n = _____

C. (2.4 pts.) Fill in the blanks in the following table.

<u>Symbol</u>	<u>Atomic #</u>	<u>Mass #</u>	<u># Protons</u>	<u># Electrons</u>	<u># Neutrons</u>
__Te__	_____	<u>128</u>	_____	_____	_____
__Se ²⁻ __	_____	<u>79</u>	<u>30</u>	_____	<u>35</u>

D. (1.2 pts.) There are many isotopes of the element europium, but only 2 are present in significant amounts. Their abundances and masses are listed below. Use this information to calculate the atomic weight of europium.

<u>Isotope</u>	<u>% Abundance</u>	<u>Mass (amu)</u>
^{151}Eu	47.82	150.9196
^{153}Eu	52.18	152.9209

E. (3.0 pts.) Fill in the blanks in the following table.

1.25 moles Si = _____ atoms Si = _____ g Si (at.wt. Si=28.1amu)

_____ moles C₆H₁₂ = _____ molecules C₆H₁₂ = 43.2 g C₆H₁₂
(at.wts. C=12.0, H= 1.00amu)

_____ moles C₃H₆O₂ = 1.94x10²⁴ molecules C₃H₆O₂ = _____ g C₃H₆O₂
(at.wts. C=12.0, H= 1.00, O=16.00amu)