

WORKSHEET 4

Chemistry 110

Name _____

(last)

(first)

Due date: _____

A. Complete the following table.

	NUCLEAR SYMBOL	NUMBER OF PROTONS	NUMBER OF NEUTRONS	NUMBER OF ELECTRONS	NET CHARGE
1	$^{112}_{48}\text{Cd}$				
2	$^{108}_{47}\text{Ag}$				
3			36	44	0
4	$^{88}_{38}\text{Sr}$				
5	$^{15}_{7}\text{N}^{3-}$				
6			34	28	+2

B. Write nuclear symbols for each of the following:

1. An isotope of barium that has 4 more neutrons than barium-133.

1. _____

2. An atom of fluorine that has 6 more subatomic particles than carbon-13.

2. _____

3. An atom of krypton that has the same number of electrons, protons, and neutrons.

3. _____

4. An atom with 5 more neutrons and 3 more protons than sulfur-37

4. _____

5. An isotope of phosphorus that contains the same number of neutrons as chlorine-34.

5. _____

6. An isotope of cobalt with the same number of subatomic particles as manganese-60.

6. _____

C. Fill in the blanks.

		MASS NUMBER	NUMBER OF PROTONS	NUMBER OF NEUTRONS	NUMBER OF ELECTRONS	ELECTRON CONFIGURATION Starting with the 1s subshell
1	lithium-7					
2	silicon-28					
3	calcium-41					
4	tin-105					
5	bromine-72					
6	Mg ²⁺	27				
7	S ²⁻	34				
8	N ³⁻	15				
9	Cl ⁻	35				