

Name: \_\_\_\_\_

Block: \_\_\_\_\_

Date: \_\_\_\_\_

Chemistry 11H

**Introduction to Atomic Theory**

Assignment

1. Fill in the following chart to describe subatomic particles in an atom:

Subatomic Particle	Electric Charge	Location in the atom	Relative Mass

2. Complete the following table:

PARTICLE	ATOMIC NUMBER	MASS NUMBER	NUMBER OF PROTONS	NUMBER OF NEUTRONS	NUMBER OF ELECTRONS
${}_{24}^{52}\text{Cr}$					
${}_{86}^{222}\text{Rn}$					
	31			39	31
			13	14	13
		197		118	76
		75	33		36
			83	126	78
$\text{X}^{2-} =$				75	54
$\text{X}^{3+} =$		103			42
$\text{X}^{3-} =$	33			42	

3. Draw Bohr diagrams for the following atoms or ions:

a. O - 16

b.  $\text{Cl}^-$  - 35

c. Ne - 20

d.  $\text{Na}^+$  - 23

4. Write the chemical symbol for:

Example: Hydrogen ion:



a. An ion with 12 protons, 10 electrons and 12 neutrons.

b. An ion with 95 protons, 89 electrons and 148 neutrons.

c. An ion with 33 protons, 42 neutrons and 36 electrons.