HOMEWORK #1

1. **Complete the table below**

Type of subatomic particle	Charge of subatomic particle	Location of subatomic particle
	Positive	
Neutron		
		Outside of nucleus

2. **Write the the keyword that is missing for each definition**

	A substance that is made up of only one type of atom.
	The number that tells us the number of protons and electrons that an atom has.

3. **Fill in the missing words in the following sentences**

- The _____ are the columns of the Periodic Table. They tell us how many valence shell _____ an atom has.
- The _____ are the rows of the Periodic Table. They tells us how many _____ shells an atom has.
- Atoms are electrically _____ because they have the _____ number of protons as electrons.

4. **Using your Periodic Table:**
    a. What is the mass number number of boron?
    b. What is the symbol for sodium?
    c. How many protons does magnesium have?
    d. How many electrons does silicon have?
5. **What group and period is aluminium found in?**
6. **Write the electron configuration for the following atoms:**
    a. Fluorine
    b. Calcium
    c. Carbon
    d. Oxygen

7. **What charge ion does lithium form?**

8. **Fill in the blanks**

Lithium form the ion Li^{+} with the charge of +1 because it _____ 1 electron from it's outer shell to become stable. It is easier to _____ 1 electron than _____ 7 to obtain a full outer shell.

9. **What charge ion does sulfur form?**

10. **Fill in the blanks**

Sulfur forms the ion S^{2-} with the charge of -2 because it _____ 2 electrons to have a stable outer shell. It is easier to _____ 2 electrons than _____ 6 to obtain a full outer shell.