

Name _____ Date Due _____

Homework 2 – Nuclide Notation, formulae and conduction.

1. Complete the table.

Element	Atomic number	Mass number	Number of protons	Number of neutrons	Number of electrons
${}_{5}^{11}\text{B}^{3-}$					8
${}_{12}^{26}\text{Mg}^{2+}$					
${}_{14}^{28}\text{Si}^{4-}$					
	34	74			36
	17			18	18
	84	209			86
	38	87			37

2. How do we know that ${}_{25}^{54}\text{Mn}^{7+}$ has 25 protons, 29 neutrons and 18 electrons?

3. Carbon dioxide (CO₂) is a covalent molecular compound. Lithium chloride (LiCl) is an ionic network. What do the formulae of carbon dioxide and Lithium Chloride mean?

3. Why do ionic compounds only conduct electricity as liquids and solutions and covalent compound don't conduct electricity at all?