

Ions and Ionic Compounds Worksheet

1. For each of the following, tell whether the bonding contains ionic, covalent or both:

- a. CO_2 _____ c. Na_2O _____ e. $\text{Ca}_3(\text{PO}_4)_2$ _____
 b. SO_3 _____ d. NH_4NO_3 _____ f. P_4O_6 _____

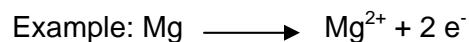
2. Write electron dot structures for each of the following elements:

- a. Se b. Ca c. O d. P e. Li f. F

3. Complete the following table:

Atom	Gain/lose e^-	# of e^- gained/lost	Charge on ion	Ion Formula	e^- dot structure of ion
Se	gains	2	-2	Se^{2-}	: Se : ²⁻
Ca					
O					
P					
Li					
F					

4. Write an equation for the ionization of each of the elements in problem #3.



- a. _____ d. _____
 b. _____ e. _____
 c. _____ f. _____

5. Diagram the formation of the ionic compounds below using dot structures. Include the charge of the ion.

a. LiCl	b. AlN
c. CaS	d. Li_3N
e. CaCl_2	f. Al_2S_3
g. Ca_3N_2	h. AlCl_3