

AP Chemistry Summer Practice

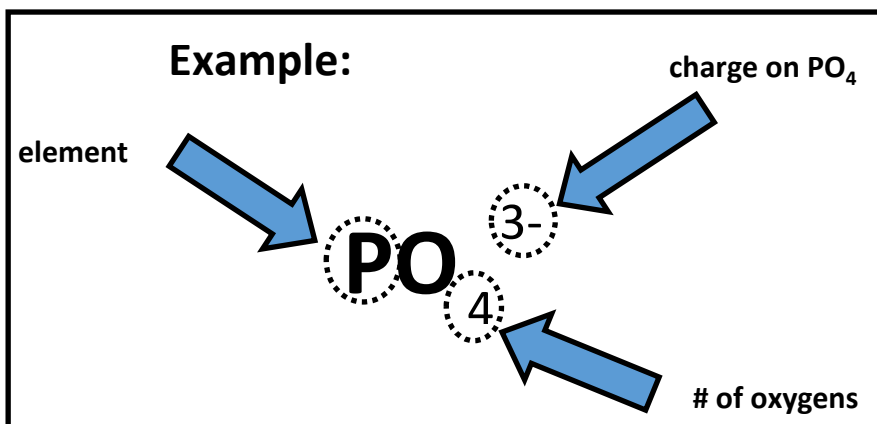
1. Memorize the ions with their charges as described on the Common Polyatomic Ions chart below.
2. In addition, know that Pb can have a charge of +2 or +4, Fe (+2, +3), and Cu (+1, +2).
3. Logon to Khan Academy or Google "Khan Academy" and watch the following videos entitled:
 - a. "Stoichiometry Example Problem 1"
 - b. "Stoichiometry Example Problem 2"
 - c. "Stoichiometry: Limiting Reagent"
 - d. "Ideal Gas Equation: $PV = nRT$ "

Common Polyatomic Ions

- = -1 charge

+ = +1 charge

<u>-1 charge ions</u>		<u>-2 charge ions</u>		<u>-3 charge ions</u>	
<u>NAME</u>	<u>Formula</u>	<u>NAME</u>	<u>Formula</u>	<u>NAME</u>	<u>Formula</u>
nitrate	NO_3^-	sulfate	SO_4^{2-}	phosphate	PO_4^{3-}
nitrite	NO_2^-	sulfite	SO_3^{2-}	arsenate	AsO_4^{3-}
hydroxide	OH^-	carbonate	CO_3^{2-}		
bromate	BrO_3^-	chromate	CrO_4^{2-}		
perchlorate	ClO_4^-	dichromate	$\text{Cr}_2\text{O}_7^{2-}$		
chlorate	ClO_3^-	oxalate	$\text{C}_2\text{O}_4^{2-}$		
chlorite	ClO_2^-	peroxide	O_2^{2-}		
hypochlorite	ClO^-	hydrogen phosphate	HPO_4^{2-}		
cyanide	CN^-				
permanganate	MnO_4^-				
hydrogen sulfate	HSO_4^-				
hydrogen carbonate	HCO_3^-				
acetate (2 forms)	$\text{C}_2\text{H}_3\text{O}_2^-$ CH_3COO^-				



+1 charge ion

ammonium NH_4^+

+2 charge ion

dimercury or mercury (I) Hg_2^{2+}

Note: Other names will be encountered. Here is an example of how the same formula can be written differently.

