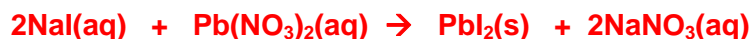


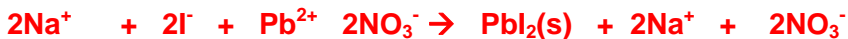
<b>TABLE 9.2</b> Solubility Guidelines: Soluble Compounds	
<b>Water-soluble compounds</b>	<b>Insoluble exceptions</b>
Compounds containing an alkali metal cation ( $\text{Li}^+$ , $\text{Na}^+$ , $\text{K}^+$ , $\text{Rb}^+$ , $\text{Cs}^+$ ) or the ammonium ion ( $\text{NH}_4^+$ )	
Compounds containing the nitrate ion ( $\text{NO}_3^-$ ), acetate ion ( $\text{C}_2\text{H}_3\text{O}_2^-$ ), or chlorate ion ( $\text{ClO}_3^-$ )	
Compounds containing the chloride ion ( $\text{Cl}^-$ ), bromide ion ( $\text{Br}^-$ ), or iodide ion ( $\text{I}^-$ )	Compounds containing $\text{Ag}^+$ , $\text{Hg}_2^{2+}$ , or $\text{Pb}^{2+}$
Compounds containing the sulfate ion ( $\text{SO}_4^{2-}$ )	Compounds containing $\text{Ag}^+$ , $\text{Hg}_2^{2+}$ , $\text{Pb}^{2+}$ , $\text{Ca}^{2+}$ , $\text{Sr}^{2+}$ , or $\text{Ba}^{2+}$

<b>TABLE 9.3</b> Solubility Guidelines: Insoluble Compounds	
<b>Water-insoluble compounds</b>	<b>Soluble exceptions</b>
Compounds containing the carbonate ion ( $\text{CO}_3^{2-}$ ), phosphate ion ( $\text{PO}_4^{3-}$ ), chromate ion ( $\text{CrO}_4^{2-}$ ), or sulfide ion ( $\text{S}^{2-}$ )	Compounds containing $\text{Li}^+$ , $\text{Na}^+$ , $\text{K}^+$ , $\text{Rb}^+$ , $\text{Cs}^+$ , or $\text{NH}_4^+$
Compounds containing the hydroxide ion ( $\text{OH}^-$ )	Compounds containing $\text{Li}^+$ , $\text{Na}^+$ , $\text{K}^+$ , $\text{Rb}^+$ , $\text{Cs}^+$ , or $\text{Ba}^{2+}$

Question 1: (2 points) Write the molecular chemical equation for the double replacement reaction of Sodium Iodide and Lead (II) nitrate



Question 2: (1 point) Write the total ionic chemical equation for the above reaction



Question 3(1 point) Write the net ionic equation for the reaction above.



Question 4(1 point) What are the spectator ions in the reaction above?

