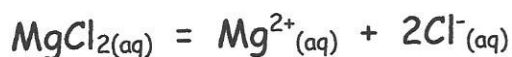


Answers: Ionic Equations

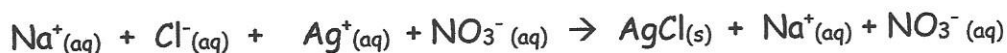
Name: _____

When ionic compounds are dissolved in water, the ions are separated from each other by water molecules. An ionic compound in solution such as sodium chloride (aq) can be written as



When each soluble ionic compound in a chemical equation is written in this manner, it is called an **ionic equation**.

i.e.



When what is common to both sides of the equation are removed, the equation is called a **net ionic equation**.

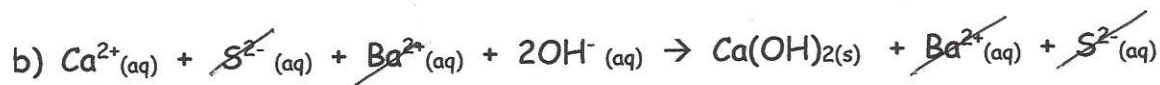
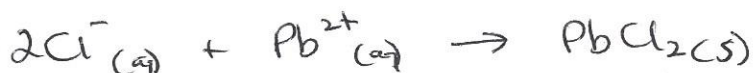
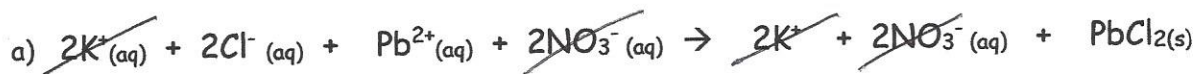
i.e.



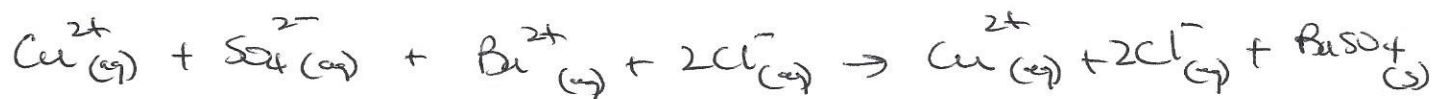
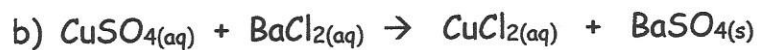
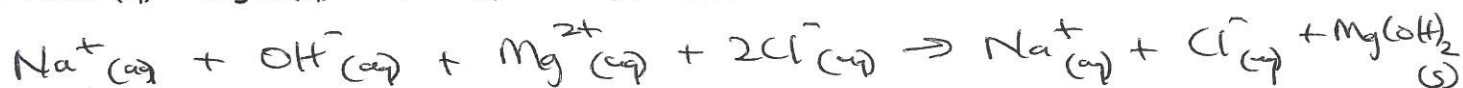
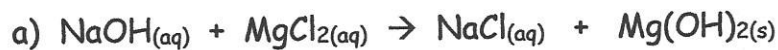
1. Separate the following aqueous compounds into ions:

Aqueous compound	Ions	Aqueous compound	Ions
$\text{CaSO}_{4(\text{aq})}$	$\text{Ca}^{2+}_{(\text{aq})} + \text{SO}_4^{2-}_{(\text{aq})}$	$\text{KBr}_{(\text{aq})}$	$\text{K}^+_{(\text{aq})} + \text{Br}^-_{(\text{aq})}$
$\text{LiOH}_{(\text{aq})}$	$\text{Li}^+_{(\text{aq})} + \text{OH}^-_{(\text{aq})}$	$\text{CaCl}_{2(\text{aq})}$	$\text{Ca}^{2+}_{(\text{aq})} + 2\text{Cl}^-_{(\text{aq})}$
$\text{NaNO}_{3(\text{aq})}$	$\text{Na}^+_{(\text{aq})} + \text{NO}_3^-_{(\text{aq})}$	$\text{Na}_3\text{PO}_{4(\text{aq})}$	$3\text{Na}^+_{(\text{aq})} + \text{PO}_4^{3-}_{(\text{aq})}$

2. Change the following ionic equations to net ionic equations.



3. Create ionic equations for each of the following.



4. i) Complete the following double displacement reaction.

ii) Balance the equation.

iii) Determine the state of each product using the solubility chart.

iv) Create the ionic equation for the reaction

v) Change the ionic equation to a net ionic equation

