

## Ionic Equations



## Equations

- \_\_\_\_\_ – show the complete chemical formulas. Does not indicate ionic character
- \_\_\_\_\_ – shows all ions. Actually how the particles exist in the solution

## Steps for Writing Ionic Equations

1. Write the balanced molecular equation (balanced chemical equation)
2. Break every thing down into its ions **EXCEPT** the solid, gas, or water (complete ionic equation)
3. Cross out everything that is the same on both sides (spectator ions)
4. Write what is left (net ionic equation)

## Rules

- When writing ionic equations, you must keep together the solid, gas, or water
- \_\_\_\_\_ – ions that appear on both sides of the equation. They have very little to do with the chemical reaction

### Example

- Write the balanced chemical equation, the complete ionic equation, and the net ionic equation for:
- lead (II) nitrate and potassium iodide. Solid potassium iodide will be formed.

### Another Example

- Write the balanced chemical equation, complete ionic equation, and net ionic equation for:
- calcium chloride and sodium carbonate. Solid calcium carbonate will be formed.

### What if water is formed?

- Write the balanced chemical equation, complete ionic equation, and net ionic equation for:
- Calcium hydroxide and nitric acid