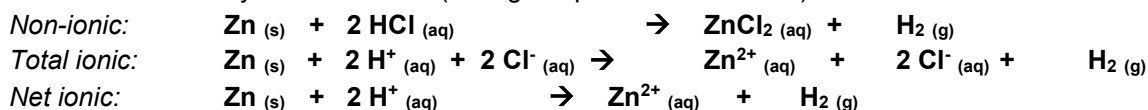
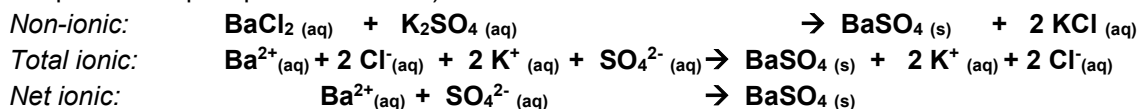


## Net Ionic Equations Worksheet

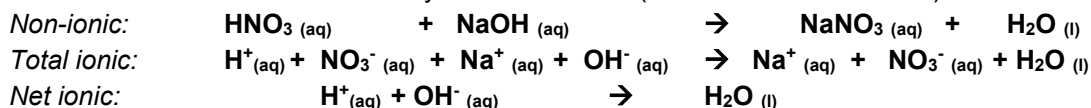
E.g. 1: Zinc reacts with hydrochloric acid. (A single replacement reaction)



E.g. 2: A barium chloride solution reacts with a potassium sulphate solution. (A double replacement/precipitation reaction)



E.g. 3: Nitric acid neutralizes a sodium hydroxide solution. (A neutralization reaction):



**Exercise:** Write the total ionic equation and the net ionic equation for each of the following reactions. All reactions are in aqueous solution.

1. Zinc reacts with a copper (II) sulphate solution.
2. Sodium reacts with water.
3. Chlorine water (aqueous  $\text{Cl}_2$ ) reacts with a potassium iodide solution.
4. A lead (II) nitrate solution reacts with sodium sulphide solution to yield a precipitate.
5. Chloric acid is neutralized by a potassium hydroxide solution.
6. Hydrochloric acid is added to a solution of barium hydroxide.
7. Strontium metal reacts with water.
8. Aqueous solutions of lithium sulphate and barium chloride are mixed.
9. Potassium hydroxide solution added to a calcium bromide solution causes a precipitate to form.
10. Aqueous solutions of sodium phosphate and barium bromide are mixed.
11. An aqueous solution of washing soda,  $\text{Na}_2\text{CO}_3$ , is added to remove  $\text{Ca}^{2+}_{(aq)}$  from water that contains dissolved calcium hydrogen carbonate.
12. Excess hydrochloric acid in gastric fluid may be neutralized by a magnesium hydroxide suspension.