

Friday quiz 2 - overall equations and ionic equations.

1) Write the balanced overall and ionic equations of the following. Give states.

- a. Hydrochloric acid (HCl) solution reacts with calcium carbonate powder to produce a calcium chloride aqueous solution, carbon dioxide gas and liquid water.

Overall equation

Ionic equation

- b. An aqueous solution of barium nitrate ($\text{Ba}(\text{OH})_2$) is placed in an aqueous solution of hydrochloric acid (HCl) to produce an aqueous solution of barium chloride and liquid water.

Overall equation

Ionic equation

- c. An aqueous solution of hydrochloric acid (HCl) reacts with a solid piece of zinc metal to produce hydrogen gas and an aqueous solution of zinc chloride.

Overall equation

Ionic equation

- d. Sodium oxide (Na_2O) solution is mixed with an aqueous solution of nitric acid to produce liquid water and an aqueous solution of sodium nitrate.

Overall equation

Ionic equation

- e. Copper(II) hydroxide powder is added to an aqueous solution of sulphuric acid (H_2SO_4) to produce water and aqueous solution of copper(II) sulphate.

Overall equation

Ionic equation

- f. Hydrochloric acid (HCl) solution is mixed with an aqueous solution of sodium sulphite (Na_2SO_3) to produce sulphur dioxide gas, liquid water and an aqueous solution of sodium chloride.

Overall equation

Ionic equation

- g. Copper(II) sulphide powder is placed in aqueous solution of HCl to produce solid copper chloride and hydrogen sulphide gas (H_2S).

Overall equation

Ionic equation

- 2) Write the balanced ionic equation for the reaction that occurs when the two aqueous solutions of CuSO_4 and K_2S are mixed to form a precipitate.

- 3) Write the balanced overall and ionic equation for the reaction between aqueous solutions of K_2CO_3 and HNO_3 . Include states.
 - a. Overall

 - b. Ionic

- 4) Write the balanced overall and ionic equations for the reaction between aqueous solutions of AgNO_3 and MgCrO_4 to form an insoluble, coloured, substance. Include states.

