

Chapter 4 Review

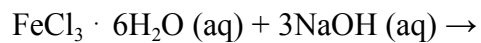
Determine if each is a strong electrolyte, weak electrolyte, or nonelectrolyte.

HNO_3 _____ CH_3OH _____ $\text{Zn}(\text{OH})_2$ _____

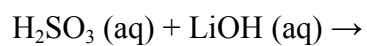
HF _____ K_2SO_4 _____ $\text{C}_6\text{H}_{12}\text{O}_6$ _____

Write the net ionic equation for potassium iodide and silver nitrate in a precipitation reaction.
What are the spectator ions?

Write the net ionic equation for the following.

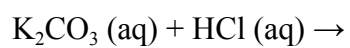


Write the net ionic equation for the following.

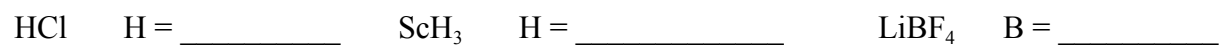
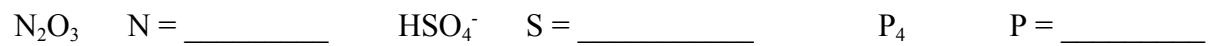


Write the net ionic equation for sulfuric acid and potassium hydroxide.

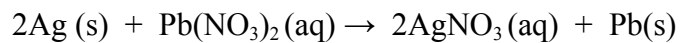
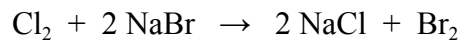
Write the net ionic equation for the following:



Find the oxidation number of the indicated atoms:



Determine what is oxidized and reduced. Identify the oxidizing agent and the reducing agent.



What is the concentration of an aqueous solution with a volume of 450 mL that contains 200. grams of iron (II) chloride (MW = 126.751 g)?

How many grams of copper (II) fluoride are needed to make 6.7 liters of a 1.2 M solution?

If you dilute 175 mL of a 1.6 M solution of LiCl to 1.0 L, determine the new concentration of the solution.

If it takes 10.0 mL of 2.0 M H_2SO_4 to neutralize 30.0 mL of KOH, what is the molar concentration of the KOH?

What is the concentration of NO_3^- in a 0.65 M solution of barium nitrate?