Writing Balanced Equations from Word Equations

Directions: *Write a balanced chemical equation for each of the word equations below. (Include symbols to show the state of each compound.)*

1. aqueous sodium chloride reacts with aqueous lead (II) nitrate to yield a lead (II) chloride precipitate and aqueous sodium nitrate

2. aqueous barium nitrate reacts with sulfuric acid to yield a barium sulfate precipitate and nitric acid

3. silver nitrate reacts in solution with potassium chromate to yield a silver chromate precipitate and soluble potassium nitrate

4. solid calcium carbonate reacts with hydrochloric acid to yield aqueous calcium chloride, carbon dioxide gas, and liquid water

5. aqueous zinc chloride reacts with hydrosulfuric acid gas to yield a zinc sulfide precipitate and hydrochloric acid

6. magnesium nitrate reacts in solution with potassium hydroxide to yield a magnesium hydroxide precipitate and soluble potassium nitrate

7. solid aluminum hydroxide reacts with nitric acid to yield soluble aluminum nitrate and liquid water

8. aqueous lead (IV) nitrate reacts with aqueous sodium sulfate to yield a lead (IV) sulfate precipitate and soluble sodium nitrate

9. aqueous sodium hydroxide reacts with carbon dioxide gas to yield soluble sodium carbonate and liquid water

10. solid magnesium oxide reacts with hydrochloric acid to yield a solution of magnesium chloride and liquid water

11. solid zinc metal reacts with sulfuric acid to yield aqueous zinc sulfate and hydrogen gas

12. solid iron (III) oxide reacts with solid aluminum metal to yield solid aluminum oxide and solid iron metal