**NAME\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ PERIOD\_\_\_\_\_\_**

**RXN PREDICTING PRACTICE #1**

**BY TYPE OF REACTION**

**Complete the word equation and write the balanced chemical equation. Give the reason for the product(s) in each case. Consult the activity series and the solubility tables.**

**Composition reactions:**

1. sodium + iodine →

2. calcium + oxygen →

3. hydrogen + chlorine →

4. calcium oxide + water →

5. dinitrogen pentoxide + water →

**Decomposition reactions:**

6. nickel(II) chlorate →

7. barium carbonate →

8. zince hydroxide →

9. mercury(II) oxide →

10. copper (II) carbonate →

**Single Replacement reactions:**

11. aluminum + sulfuric acid →

12. potassium iodide + chlorine→

13. iron + copper (II) nitrate →

14. zinc + hydrochloric acid →

15. magnesium + silver nitrate →

**Double Replacement (ionic reactions)**

16. silver nitrate + zinc chloride →

17. copper(II) hydroxide + acetic acid →

18. iron(II) sulfate + ammonium sulfide →

19. ammonium chloride + sodium hydroxide →

20. hydrochloric acid + potassium hydroxide →

**NAME\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ PERIOD\_\_\_\_\_\_**

**REACTION PREDICTION (Set #2)**

**If the word equation is complete, write and balance the chemical equation. If the word equation is incomplete, complete it and write the balanced chemical equation. Tell the type of reaction. Give reason(s) for the product(s)**

1. barium chloride + sodium sulfate →

2. calcium + hydrochloric acid →

3. iron(II) sulfide + hydrochloric acid → hydrogen sulfide (g) +

4. zinc chloride + ammonium sulfide →

5. ammonia + oxygen → nitric acid + water

6. magnesium + nitric acid →

7. potassium + water →

8. sodium iodide + bromine →

9. silver + sulfur→

10. sodium chlorate →

11. zinc + lead(II) acetate →

12. iron (II) hydroxide →

13. lead (II) acetate + hydrogen sulfide →

14. aluminum bromide + chlorine →

15. magnesium carbonate →

16. iron(II) chloride + sodium hydroxide →

17. calcium oxide + diphophorus pentoxide →

18. chromium + oxygen →

19. calcium carbonate + hydrochloric acid →

20. calcim hydroxide + phophoric acid →

21. sodium carbonate + nitirc acid →

22. aluminum hydroxide + sulfuric acid →

23. sodium sulfite + sulfuric acid →

24. copper + sulfuric acid →

25. calcium hydroxide + ammonium sulfate →