Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_\_

**Writing Reactions**

**Review Balancing and Formula Writing**

Supply the correct coefficients to balance the following equations:

1. AgNO3 + NaOH 🡪 Ag2O + NaNO3 + H2O
2. NaHCO3 🡪 Na2CO3 + CO2 + H2O
3. Pb(NO3)2 + HCl 🡪 PbCl2 + HNO3
4. Fe2O3 + H2 🡪 Fe + H2O

Write formulas or names for the following elements / compounds:

1. a. hydrogen \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ b. BaSO4 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. a. magnesium chloride \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ b. Br2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. a. sodium \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ b. Na3PO4 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. a. sulfur trioxide \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ b. PbS \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. a. calcium hydroxide \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ b. K2CO3 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. a. copper (II) nitrate \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ b. N2O5 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Write the correct formulas for each reactant and product and balance. Don’t forget which elements are diatomic!

1. copper (I) sulfate + iron → iron (II) sulfate + copper

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1. calcium hydroxide → calcium oxide + carbon dioxide

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1. iron (II) sulfide + hydrochloric acid → iron (II) chloride + hydrogen sulfide

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1. aluminum + hydrochloric acid → aluminum chloride + hydrogen *(diatomic)*

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1. iron + sulfur → iron (II) sulfide

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Write the products for the following double displacement reactions. Balance the equation. Write (s) on any solid products formed, (l) on any liquid products, and (aq) on any soluble products.

16. CuSO4(aq) + NaOH(aq) →

17. NaBr(aq) + Pb(NO3)2(aq) →

18. MgI2(aq) + AgC2H3O2(aq) →

19. FeSO4(aq) + Na2CO3(aq) →

20. Al(NO3)3(aq) + K3PO4(aq) →

21. H2SO4(aq) + LiOH(aq) →

22. CaCl2(aq) + Li2CO3(aq) →

23. Ba(NO3)2(aq) + (NH4)2SO4(aq) →

24. HCl(aq) + Mg(OH)2(aq) →

25. AgNO3(aq) + K2CO3(aq) →