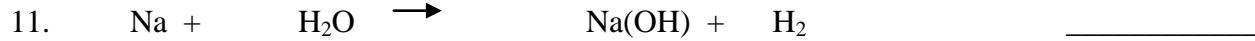
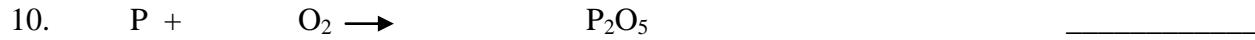
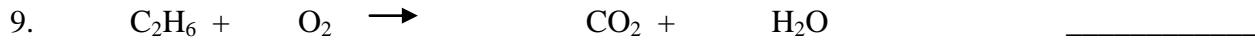
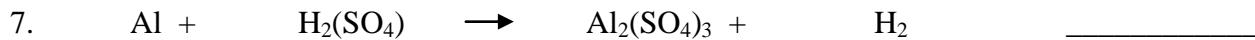
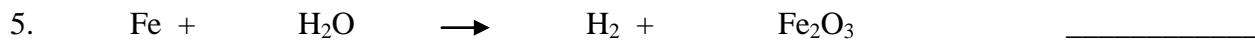
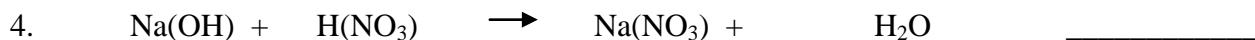
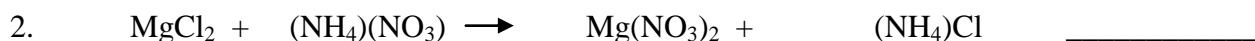


Name: _____ Period: _____ Balancing and Types I

Balance the following chemical equations using only coefficients and indicate the type of chemical reaction at the line on the right. Do not write “1” for any coefficient. Please write large coefficients. Extra parentheses are used on this homework to assist you in identifying polyatomic ions. Use these abbreviations for the types of reaction: S ≡ synthesis, D ≡ decomposition, SR ≡ single replacement, DR ≡ double replacement, C ≡ combustion, ABN ≡ acid base neutralization.



14. $(\text{NH}_4)_2\text{S} + \text{Pb}(\text{NO}_3)_2 \rightarrow \text{PbS} + (\text{NH}_4)(\text{NO}_3)$ _____
15. $\text{K(OH)} + \text{H}_2(\text{SO}_4) \rightarrow \text{K}_2(\text{SO}_4) + \text{H}_2\text{O}$ _____
16. $\text{K}_3(\text{PO}_4) + \text{MgCl}_2 \rightarrow \text{Mg}_3(\text{PO}_4)_2 + \text{KCl}$ _____
17. $\text{NH}_3 + \text{O}_2 \rightarrow \text{N}_2 + \text{H}_2\text{O}$ _____
18. $\text{CO}_2 + \text{H}_2\text{O} \rightarrow \text{H}_2(\text{CO}_3)$ _____
19. $\text{Al}_2(\text{SO}_4)_3 + (\text{NH}_4)\text{Br} \rightarrow \text{AlBr}_3 + (\text{NH}_4)_2(\text{SO}_4)$ _____
20. $\text{KF} + \text{BaBr}_2 \rightarrow \text{BaF}_2 + \text{KBr}$ _____
21. $\text{H}_2\text{S} + \text{O}_2 \rightarrow \text{H}_2\text{O} + \text{S}$ _____
22. $(\text{NH}_4)\text{Cl} + \text{Na}(\text{NO}_3) \rightarrow \text{NaCl} + (\text{NH}_4)(\text{NO}_3)$ _____
23. $\text{C}_3\text{H}_8 + \text{O}_2 \rightarrow \text{H}_2\text{O} + \text{CO}_2$ _____
24. $\text{Ca}_3(\text{PO}_4)_2 + \text{H}_2(\text{SO}_4) \rightarrow \text{Ca}(\text{SO}_4) + \text{H}_3(\text{PO}_4)$ _____
25. $\text{FeCl}_3 + (\text{NH}_4)(\text{OH}) \rightarrow \text{Fe}(\text{OH})_3 + (\text{NH}_4)\text{Cl}$ _____