| Balancing Equations Handout #2<br>Balance these skeleton reactions. Use phase symbols,<br>indicate what reaction type they are (S, D, SR, DR, or Comb) | Reaction type |
|---|---|
| $\_\_C_3H_{8(G)} + \_\_O_{2(G)} \rightarrow$ | |
| $\_\_(NH_4)_2S_{(AQ)} + \_\_Al(NO_3)_{3(AQ)} \rightarrow$ | |
| $\_\_Ba_3P_{2(S)} \rightarrow$ | |
| $\_\_Al + \_\_O_{2(G)} \rightarrow \_\_Al_2O_{3(S)}$ | |
| $\_\_Na_2SO_{4(AQ)} + \_\_SrCl_{2(AQ)} \rightarrow$ | |
| $\_\_Fe_{(S)} + \_\_CuCl_{2(AQ)} \rightarrow \_\_FeCl_{3(AQ)} + \_\_Cu_{(S)}$ | |
| $\_\_C_8H_{18} + \_\_O_{2(G)} \rightarrow$ | |
| $\_\_Co_{(S)} + \_\_S_{(S)} \rightarrow \_\_Co_2S_{3(S)}$ | |
| $\_\_KNO_{3(S)} \rightarrow \_\_KNO_{2(S)} + \_\_O_{2(G)}$ | |
| $\_\_Cl_{2(G)} + \_\_LiBr_{(AQ)} \rightarrow$ | |
| $\_\_Al(NO_3)_{3(AQ)} + \_\_(NH_4)_2SO_{4(AQ)} \rightarrow$ | |
| $\_\_Pb(NO_3)_{2(AQ)} + \_\_LiCl_{(AQ)} \rightarrow$ | |
| $\_\_BeF_{2(S)} \rightarrow \_\_Be_{(S)} + \_\_F_{2(G)}$ | |

| ANSWERS | Reaction type |
|---|---|
| $C_3H_{8(G)} + 5O_{2(G)} \rightarrow 3CO_{2(G)} + 4H_2O_{(G)}$ | Comb |
| $3(NH_4)_2S_{(AQ)} + 2Al(NO_3)_{3(AQ)} \rightarrow 6NH_4NO_{3(AQ)} + Al_2S_{3(S)}$ | DR |
| $Ba_3P_{2(S)} \rightarrow 3Ba_{(S)} + 2P_{(S)}$ | D |
| $4Al + 3O_{2(G)} \rightarrow 2Al_2O_{3(S)}$ | S |
| $Na_2SO_{4(AQ)} + SrCl_{2(AQ)} \rightarrow 2NaCl_{(AQ)} + SrSO_{4(S)}$ | DR |
| $2Fe_{(S)} + 3CuCl_{2(AQ)} \rightarrow 2FeCl_{3(AQ)} + 3Cu_{(S)}$ | SR |
| $2C_8H_{18} + 25O_{2(G)} \rightarrow 16CO_{2(G)} + 18H_2O_{(G)}$ | Comb |
| $2Co_{(S)} + 3S_{(S)} \rightarrow Co_2S_{3(S)}$ | S |
| $2KNO_{3(S)} \rightarrow 2KNO_{2(S)} + 3O_{2(G)}$ | D |
| $Cl_{2(G)} + 2LiBr_{(AQ)} \rightarrow Br_{2(L)} + 2LiCl_{(AQ)}$ | SR |
| $2Al(NO_3)_{3(AQ)} + 3(NH_4)_2SO_{4(AQ)} \rightarrow Al_2(SO_4)_{3(S)} + 6NH_4NO_{3(AQ)}$ | DR |
| $Pb(NO_3)_{2(AQ)} + 2LiCl_{(AQ)} \rightarrow PbCl_{2(S)} + 2LiNO_{3(AQ)}$ | DR |
| $BeF_{2(S)} \rightarrow Be_{(S)} + F_{2(G)}$ (balanced as is) | D |