Name_____ Class_____ No._____

The 4 Basics Type of Reaction

Synthesis Reactions	A + B → AB	$2H_2(g) + O_2(g) \rightarrow 2H_2O(l)$
Decomposition reaction	AB → A + B	$CaCO_3(s) \rightarrow CaO(s) + CO_2(g)$
single displacement reaction	AB + C → AC + B	$Zn(s) + 2HCl(aq) \rightarrow ZnCl_2(aq) + H_2(g)$
double replacement reaction	AB + CD → AD + BC	$NaOH(aq) + HCl(aq) \rightarrow NaCl(aq) + H_2O(l)$

Choose the correct symbol for the type of reaction. Place that answer in the blank _____ at the beginning of each equation and then balance each equation correctly in ☐ .

S = synthesis S

D = decomposition D

C = combustion C

SD = single displacement SD SD

DR = double replacement DR

1. _____ ☐ Na (s) + ☐ H_2O (l) → ☐ NaOH (aq) + ☐ H_2 (g)
2. _____ ☐ CO (g) + ☐ O_2 (g) → ☐ CO_2 (g)
3. _____ ☐ FeS (s) + ☐ HCl (aq) → ☐ $FeCl_2$ (aq) + ☐ H_2S (g)
4. _____ ☐ $NaNO_3$ (s) → ☐ $NaNO_2$ (s) + ☐ O_2 (g)
5. _____ ☐ CH_4 (g) + ☐ O_2 (g) → CO_2 (g) + ☐ H_2O (g)
6. _____ ☐ Fe (s) + ☐ $CuNO_3$ (aq) → ☐ Cu (s) + ☐ $Fe(NO_3)_2$ (aq)
7. _____ ☐ KI (aq) + ☐ Cl_2 (g) → ☐ KCl (aq) + ☐ I_2 (aq)
8. _____ ☐ Al (s) + ☐ S (s) → ☐ Al_2S_3 (s)
9. _____ ☐ $KClO_3$ (s) → ☐ KCl (s) + ☐ O_2 (g)
10. _____ ☐ C_4H_{10} (g) + ☐ O_2 (g) → ☐ CO_2 (g) + ☐ H_2O