Chemical Equation Worksheet NAME:_____

Types of Reactions: Identifying and predicting products

For each reaction equation:

1. Balance the equation.
2. Identify the type of reaction (synthesis, decomposition, etc.).

	Reaction Type
1. $2\ KClO_3 \rightarrow 2\ KCl + 3\ O_2$	1. D
2. $2\ KBr + 1\ F_2 \rightarrow 2\ KF + 1\ Br_2$	2. SR
3. $1\ S_8 + 24\ F_2 \rightarrow 8\ SF_6$	3. S
4. $1\ Na_2SO_4 + 1\ Pb(NO_3)_2 \rightarrow 2\ NaNO_3 + 1\ PbSO_4$	4. DR
5. $1\ C_3H_8 + 5\ O_2 \rightarrow 3\ CO_2 + 4\ H_2O$	5. C
6. $1\ Zn + 2\ HCl \rightarrow 1\ ZnCl_2 + 1\ H_2$	6. SR
7. $2\ FeCl_3 + 3\ Na_2CO_3 \rightarrow 1\ Fe_2(CO_3)_3 + 6\ NaCl$	7. DR
8. $2\ Na + 2\ H_2O \rightarrow 2\ NaOH + 1\ H_2$	8. SR
9. $2\ C_2H_6 + 7\ O_2 \rightarrow 4\ CO_2 + 6\ H_2O$	9. C
10. $2\ HgO \rightarrow 2\ Hg + 1\ O_2$	10. D
11. $3\ CaCl_2 + 2\ Na_3PO_4 \rightarrow 6\ NaCl + 1\ Ca_3(PO_4)_2$	11. DR
12. $1\ N_2O_5 + 1\ H_2O \rightarrow 2\ HNO_3$	12. S
13. $1\ Mg + 1\ CuCl_2 \rightarrow 1\ MgCl_2 + 1\ Cu$	13. SR

Types of Reactions Worksheet

Balance the following equations and indicate the type of reaction taking place:

1) 3 NaBr + 1 H_3PO_4 → 1 Na_3PO_4 + 3 HBr

Type of reaction: DR

2) 3 $Ca(OH)_2$ + 1 $Al_2(SO_4)_3$ → 3 $CaSO_4$ + 2 $Al(OH)_3$

Type of reaction: DR

3) 3 Mg + 1 Fe_2O_3 → 2 Fe + 3 MgO

Type of reaction: SR

4) 1 C_2H_4 + 3 O_2 → 2 CO_2 + 2 H_2O

Type of reaction: C

5) 2 $PbSO_4$ → 2 $PbSO_3$ + 1 O_2

Type of reaction: D

6) 2 NH_3 + 3 I_2 → 1 N_2I_6 + 3 H_2

Type of reaction: SR

7) 1 H_2O + 1 SO_3 → 1 H_2SO_4

Type of reaction: S

8) 1 H_2SO_4 + 2 NH_4OH → 2 H_2O + 1 $(NH_4)_2SO_4$

Type of reaction: N (DR)