BALANCING EQUATIONS PRACTICE WORKSHEET

1.) ___ CH_4 + ___ O_2 → ___ CO_2 + ___ H_2O

2.) ___ Na + ___ I_2 → ___ NaI

3.) ___ N_2 + ___ O_2 → ___ N_2O

4.) ___ N_2 + ___ H_2 → ___ NH_3

5.) ___ KI + ___ Cl_2 → ___ KCl + ___ I_2

6.) ___ HCl + ___ $Ca(OH)_2$ → ___ $CaCl_2$ + ___ H_2O

7.) ___ $KClO_3$ → ___ KCl + ___ O_2

8.) ___ K_3PO_4 + ___ HCl → ___ KCl + ___ H_3PO_4

9.) ___ S + ___ O_2 → ___ SO_3

10.) ___ KI + ___ $Pb(NO_3)_2$ → ___ KNO_3 + ___ PbI_2

11.) ___ $CaSO_4$ + ___ $AlBr_3$ → ___ $CaBr_2$ + ___ $Al_2(SO_4)_3$

12.) ___ H_2O_2 → ___ H_2O + ___ O_2

13.) ___ Na + ___ H_2O → ___ NaOH + __ H_2

14.) ___ C_2H_6 + ___ O_2 → ___ CO_2 + ___ H_2O

15.) ___ $Mg(NO_3)_2$ + ___ K_3PO_4 → ___ $Mg_3(PO_4)_2$ + ___ KNO_3

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REACTION TYPES WORKSHEET

--> Balance each equation.

--> Identify the type of reaction as: * S - synthesis * D - decomposition

* C – combustion * SR - single replacement * DR - double replacement

TYPE

____ 1. ___ Fe + ___ O_2 → ___ Fe_2O_3

____ 2. ___ Cl_2 + ___ KBr → ___ KCl + ___ Br_2

____ 3. ___ Fe + ___ $Cu(NO_3)_2$ → ___ $Fe(NO_3)_3$ + ___ Cu

____ 4. ___ NaCl → ___ Na + ___ Cl_2

____ 5. ___ $FeCl_3$ + ___ KOH → ___ KCl + ___ $Fe(OH)_3$

____ 6. ___ $KClO_3$ → ___ KCl + ___ O_2

____ 7. ___ Al + ___ O_2 → ___ Al_2O_3

____ 8. ___ Na_2S + ___ $AgNO_3$ → ___ Ag_2S + ___ $NaNO_3$

____ 9. ___ $CaCO_3$ → ___ CaO + ___ CO_2

____ 10. ___ Mg + ___HCl → ___ $MgCl_2$ + ___ H_2

____ 11. ___ $Mg(OH)_2$ + ___ HCl → ___ $MgCl_2$ + ___ H_2O

____ 12. ___ Na_2SO_4 + ___ $BaCl_2$ → ___ $BaSO_4$ + ___ NaCl

____ 13. ___ C_2H_2 + ___O_2 → ___ CO_2 + ___ H_2O

____ 14. ___ CaI_2 + ___ F_2 → ___ CaF_2 + ___ I_2

____ 15. ___ NaOH → ___ Na_2O + ___ H_2O

____ 16. ___ $ZnBr_2$ + ___ $AgNO_3$ → ___ AgBr + ___ $Zn(NO_3)_2$

____ 17. ___ C_4H_{10} + ___ O_2 → ___ CO_2 + ___ H_2O

____ 18. ___ K + ___ Br_2 → ___ KBr

____ 19. ___ $NaHCO_3$ → ___ Na_2CO_3 + ___ H_2O + ___ CO_2

____ 20. ___ $AgNO_3$ + ___ Cu → ___ Ag + ___ $Cu(NO_3)_2$

____ 21. ___ $CuSO_4$ + ___ NaOH → ___ $Cu(OH)_2$ + ___ Na_2SO_4

____ 22. ___ $Ca(ClO_3)_2$ → ___ $CaCl_2$ + ___ O_2

____ 23. ___ PH_3 + ___ O_2 → ___ H_3PO_4

____ 24. ___ H_2O + ___ Fe → ___ H_2 + ___ Fe_3O_4

____ 25. ___ NO + ___ O_2 → ___ NO_2

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Unit 8 Review Worksheet (Standard level)

(A) Write the formula(s) for the products of the reaction (if they are not already given).
(B) Balance the equation.
(C) Tell the type of reaction.

	Reactants		Products	Type of Equation
1.	silver nitrate + sodium chloride __ $AgNO_3$ + __ NaCl	→	__ AgCl + __ $NaNO_3$	
2.	ammonium sulfide + barium nitrate __ $(NH_4)_2S$ + __ $Ba(NO_3)_2$	→	__ NH_4NO_3 + __ BaS	
3.	lithium carbonate __ Li_2CO_3	→	__ Li_2O + __ CO_2	
4.	zinc + sulfur __ Zn + __ S	→	__ ZnS	
5.	potassium + chlorine __ K + __ Cl_2	→	__ KCl	
6.	magnesium nitride __ Mg_3N_2	→	__ Mg + __ N_2	
7.	aluminum + copper (II) sulfate __ Al + __ $CuSO_4$	→		
8.	aluminum + iron (III) bromide __ Al + __ $FeBr_3$	→		
9.	bromine + silver chloride __ Br_2 + __ AgCl	→		
10.	zinc + nickel (II) nitrate __ Zn + __ $Ni(NO_3)_2$	→		
11.	magnesium + silver sulfate	→		

	__ Mg + __ Ag_2SO_4			
12.	potassium sulfate + aluminum chlorate __ K_2SO_4 + __ $Al(ClO_3)_3$	→	__ $KClO_3$ + __ $Al_2(SO_4)_3$	
13.	ethane (C_2H_6) + oxygen __ C_2H_6 + __ O_2	→		
14.	copper (II) chloride + sodium phosphate __ $CuCl_2$ + __ Na_3PO_4	→	__ $Cu_3(PO_4)_2$ + __ NaCl	
15.	calcium bicarbonate __ $Ca(HCO_3)_2$	→	__ CaO + __ CO_2 + __ H_2O	
16.	strontium nitrate + copper (II) sulfate __ $Sr(NO_3)_2$ + __ $CuSO_4$	→	__ $SrSO_4$ + __ $Cu(NO_3)_2$	
17.	magnesium acetate + iron (III) carbonate __ $Mg(C_2H_3O_2)_2$ + __ $Fe_2(CO_3)_3$	→	__ $MgCO_3$ + __ $Fe(C_2H_3O_2)_3$	
18.	copper (II) phosphate + zinc __ $Cu_3(PO_4)_2$ + __ Zn	→		
19.	potassium + HCl __ K + __ HCl	→		
20.	calcium + potassium chlorate __ Ca + __ $KClO_3$	→		