SNC 2DO

Name: _____

Classifying Reactions and Balancing Chemical Equations

For each of the chemical reactions are listed below, complete the following:

- Balance the skeletal equation
- The type of chemical reaction (synthesis, decomposition, single displacement, or double displacement)

1. Balance the skeletal equation: _____ Cu + _____ O_2 → _____ CuO
   Reaction type: _____

2. Balance the skeletal equation: _____ H_2O → _____ O_2 + _____ H_2
   Reaction type: _____

3. Balance the skeletal equation: _____ Fe + _____ H_2O → _____ Fe_2O_3 + ____ H_2
   Reaction type: _____

4. Balance the skeletal equation: _____ H_2S + _____ $AsCl_3$ → _____ As_2S_3 + ____ HCl
   Reaction type: _____

5. Balance the skeletal equation: _____ $CaCO_3$ → _____ CO_2 + _____ CaO
   Reaction type: _____

6. Balance the skeletal equation: _____ H_2S + _____ KOH → _____ K_2S + _____ HOH
   Reaction type: _____

7. Balance the skeletal equation: _____ S_8 + _____ Fe → _____ FeS
   Reaction type: _____

8. Balance the skeletal equation: _____ H_2SO_4 + _____ Al → _____ $Al_2(SO_4)_3$ + ___ H_2
   Reaction type: _____

9. Balance the skeletal equation: _____ H_3PO_4 + ____ NH_4OH → ____ $(NH_4)_3PO_4$ + ____ HOH
   Reaction type: _____

10. Balance the skeletal equation: _____ O_2 + ____ Al → _____ Al_2O_3
    Reaction type: _____

11.

Balance the skeletal equation: _____ H_2SO_4 + ___ $Al(OH)_3$ → _____ $Al_2(SO_4)_3$ + ___ HOH

Reaction type: _____

12.

Balance the skeletal equation: _____ Cl_2 + ____ KBr → ____ KCl + _____ Br_2

Reaction type: _____

13.

Balance the skeletal equation: _____ Ca + ____ HOH → _____ $Ca(OH)_2$ + _____ H_2

Reaction type: _____

14.

Balance the skeletal equation: _____ H_2O_2 → ____ O_2 + _____ H_2O

Reaction type: _____

15.

Balance the skeletal equation: _____ Na + ___ Cl_2 → _____ NaCl

Reaction type: _____

16.

Balance the skeletal equation: _____ Zn + _____ $Pb(NO_3)_2$ → _____ $Zn(NO_3)_2$ +_____ Pb

Reaction type: _____

17.

Balance the skeletal equation: _____ NaI + _____$Pb(NO_3)_2$ → _____ $NaNO_3$ + _____PbI_2

Reaction type: _____

18

Balance the skeletal equation: _____ P_4 + _____O_2 → _____ P_2O_5

Reaction type: _____

19.

Balance the skeletal equation: _____ NH_4NO_3 → _____ H_2O + _____N_2O

Reaction type: _____

20.

Balance the skeletal equation: _____ CaI_2 +_____$AgNO_3$ → _____ $Ca(NO_3)_2$ + _____AgI

Reaction type: _____