Score: ____/30

Name: _____

Date: _____

[30 pt] 1. Complete the following Double Displacement and Acid/Base reactions by filling in the missing products. Balance the compounds for charge, and the overall reaction. Include the state of the products when known. Include heat/energy as a product where applicable. If No Reaction occurs write NR in the blank provided

(a)
$$\underline{\hspace{1cm}}$$
 H₃PO₄(aq) + $\underline{\hspace{1cm}}$ KOH(aq) \longrightarrow

1(a) _____

(b)
$$\underline{\text{Ba(NO}_3)_2(\text{aq})} + \underline{\text{NaCl(aq)}} \longrightarrow$$

1(b) _____

(c)
$$\underline{\underline{}}$$
 $\operatorname{Zn}(C_2H_3O_2)_2(\operatorname{aq}) + \underline{\underline{}}$ $\operatorname{Al}_2(\operatorname{SO}_4)_3(\operatorname{aq}) \longrightarrow$

1(c) _____

(d)
$$_$$
FeBr₃(aq) + $_$ H₃PO₄(aq) \longrightarrow

1(d) _____

$$(e) \ __ HNO_3(aq) + __Li_2CO_3(aq) \longrightarrow$$

1(e) _____

(f)
$$\underline{\hspace{1cm}}$$
 Na₂SO₃(aq) + $\underline{\hspace{1cm}}$ HNO₃(aq) \longrightarrow

1(f) _____

(g)
$$\underline{\hspace{1cm}}$$
Zn(OH)₂(aq) + $\underline{\hspace{1cm}}$ MgCrO₄(aq) \longrightarrow

1(g) _____

$$(h) \ \ \underline{\hspace{1cm}} \ Ca(C_2H_3O_2)_2(aq) + \underline{\hspace{1cm}} \ Al_2(CO_3)_3(aq) \longrightarrow$$

1(h) _____

(i) ___
$$HNO_3(aq) +$$
__ $Mg(OH)_2(aq) \longrightarrow$

1(i) _____

(j)
$$\underline{\hspace{1cm}}$$
 (NH₄)₂CO₃(aq) + $\underline{\hspace{1cm}}$ Al(C₂H₃O₂)₃(aq) \longrightarrow

1(j) _____