Neutral Territory HW (IV-5)

Predict the products and balance the equation:

1. $HF\ (aq) + NaOH\ (aq) \rightarrow$
2. $HCl\ (aq) + Mg(OH)_2\ (aq) \rightarrow$
3. $HF\ (aq) + NH_4OH\ (aq) \rightarrow$
4. $HNO_3\ (aq) + CH_3COOH\ (aq) \rightarrow$
5. $CH_3COOH\ (aq) + NaOH\ (aq) \rightarrow$
6. $HNO_3\ (aq) + Mg(OH)_2\ (aq) \rightarrow$
7. $HNO_3\ (aq) + NH_4OH\ (aq) \rightarrow$
8. $CH_3COOH\ (aq) + Mg(OH)_2\ (aq) \rightarrow$
9. $CH_3COOH\ (aq) + NH_4OH\ (aq) \rightarrow$
10. $NaOH\ (aq) + NH_4OH\ (aq) \rightarrow$
11. $H_2SO_4\ (aq) + HNO_3\ (aq) \rightarrow$
12. $H_2SO_4\ (aq) + Mg(OH)_2\ (aq) \rightarrow$

Selected Answers:

1. $HF\ (aq) + NaOH\ (aq) \rightarrow NaF + H_2O$
2. $2HCl\ (aq) + Mg(OH)_2\ (aq) \rightarrow MgCl_2 + \mathbf{2}H_2O$
3. $HF\ (aq) + NH_4OH\ (aq) \rightarrow NH_4F + H_2O$
11. NO RXN (two acids)