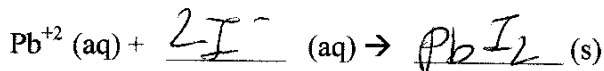
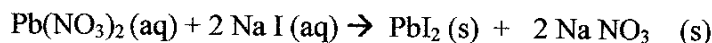


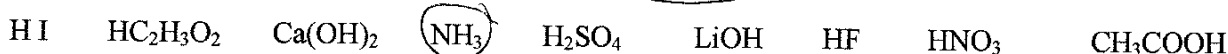
Name Kory Name _____
 (print name) (sign name) (I can't read some of your handwriting.)

Please show all work for full credit. If you show work you may also get partial credit.

1. Complete the following molecular form of the precipitation reaction give the net ionic equation for the following reaction: (3 pts each, 6 pts)



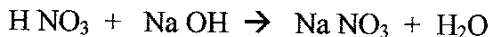
- 2 Among the following compounds, circle all weak bases. (1/2 pt each, 4.5 pts total)



- 3 Complete the following acid base reaction. (4 pts each, 8 pts)



- 4 For the following titration reaction if you neutralize a 0.250 M solution of HNO₃ of volume 73.7 mL with a 1.02 M NaOH solution, how many mL of NaOH do you need? Show work. (6 pts)



method 1

$$73.7 \text{ mL HNO}_3 \text{ soln} \times \frac{0.250 \text{ mol HNO}_3}{1000 \text{ mL HNO}_3 \text{ soln}} \times \frac{1 \text{ mol NaOH}}{1 \text{ mol HNO}_3} \times \frac{1000 \text{ mL soln NaOH}}{1.02 \text{ mol NaOH}} = 18.1 \text{ mL NaOH}$$

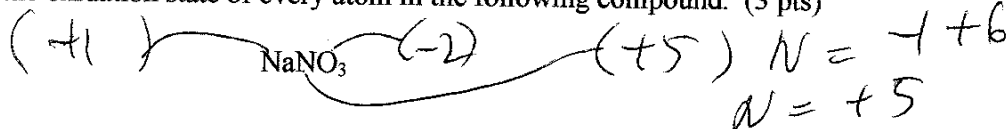
method 2

$$m_{\text{acid}} = 0.250 \text{ M} \quad m_{\text{base}} = 1.02 \text{ M} \quad m_a V_a = m_b V_b$$

$$V_{\text{acid}} = 73.7 \text{ mL} \quad V_{\text{base}} = ? \quad V_b = \frac{m_a V_a}{m_b}$$

$$V_b = \frac{(0.250 \text{ M})(73.7 \text{ mL})}{(1.02 \text{ M})} = 18.1 \text{ mL NaOH}$$

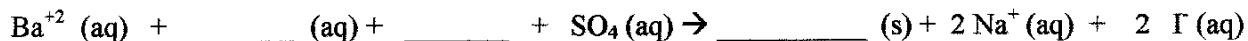
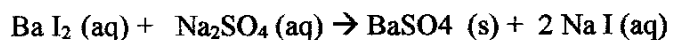
Extra Credit: What is the oxidation state of every atom in the following compound. (3 pts)



Name _____ Name _____
 (print name) (sign name) (I can't read some of your handwriting.)

Please show all work for full credit. If you show work you may also get partial credit.

1. Write out the **complete ionic** form of the following precipitation reaction **by filling in the blanks**. The reaction does not need to be balanced. (2 pts each, 6 pt total)



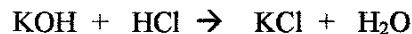
- 2 Among the following compounds, circle all strong acids. (1/2 pt each, 4.5 pts total)

H I HC₂H₃O₂ Ca(OH)₂ NH₃ H₂SO₄ LiOH HF HNO₃ CH₃COOH

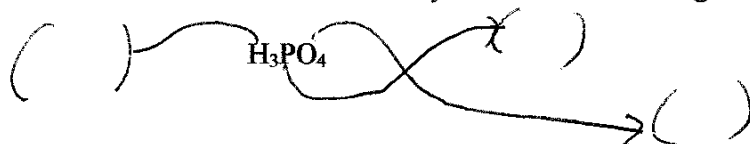
- 3 Complete the following gas evolution reaction. (4 pts each, 8 pts)



- 4 For the following titration reaction, if you neutralize 25.7 mL of 0.25 M KOH with 55.8 mL of a HCl acid solution, what is the concentration of the HCl? Show work. (6 pts)



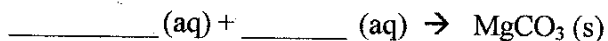
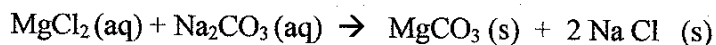
Extra Credit: What is the oxidation state of every atom in the following compound. (3 pts)



Name _____ Name _____
(print name) (sign name) (I can't read some of your handwriting.)

Please show all work for full credit. If you show work you may also get partial credit.

1. Complete the following molecular form of the precipitation reaction give the net ionic equation for the following reaction: (3 pts each, 6 pts)



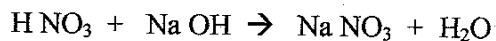
2. Among the following compounds, circle all weak acids. (1/2 pt each, 4.5 pts total)

HI $\text{HC}_2\text{H}_3\text{O}_2$ $\text{Ca}(\text{OH})_2$ NH_3 H_2SO_4 LiOH HF HNO_3 CH_3COOH

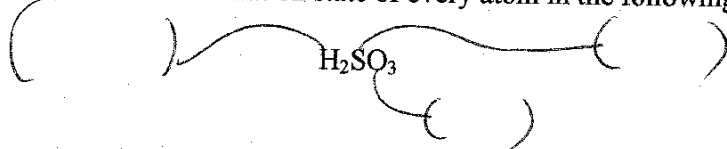
3. Complete the following acid base reaction. (4 pts each, 8 pts)



4. For the following titration reaction if you neutralize a 1.5 M solution of HNO_3 of volume 250.0 mL with a 0.55 M NaOH solution, how many mL of NaOH do you need? Show work. (6 pts)



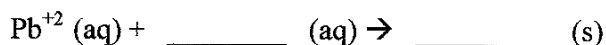
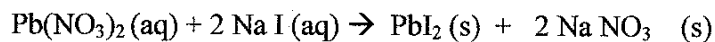
Extra Credit: What is the oxidation state of every atom in the following compound. (3 pts)



Name _____ Name _____
 (print name) (sign name) (I can't read some of your handwriting.)

Please show all work for full credit. If you show work you may also get partial credit.

1. Complete the following molecular form of the precipitation reaction give the net ionic equation for the following reaction: (3 pts each, 6 pts)



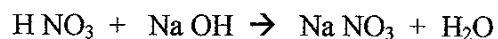
2. Among the following compounds, circle all weak bases. (1/2 pt each, 4.5 pts total)

HI HC₂H₃O₂ Ca(OH)₂ NH₃ H₂SO₄ LiOH HF HNO₃ CH₃COOH

3. Complete the following acid base reaction. (4 pts each, 8 pts)



4. For the following titration reaction if you neutralize a 0.250 M solution of HNO₃ of volume 73.7 mL with a 1.02 M NaOH solution, how many mL of NaOH do you need? Show work. (6 pts)



Extra Credit: What is the oxidation state of every atom in the following compound. (3 pts)

