

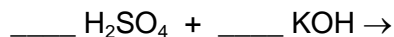
## Honors Chemistry

### pH, Strong Acid Strong Base Neutralization Reactions

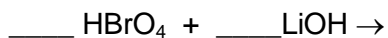
1. Complete the following:

- a)  $[H^+] =$  \_\_\_\_\_  $[OH^-] =$  \_\_\_\_\_ pH = \_\_\_\_\_ pOH = **4.4**
- b)  $[H^+] = 1.8 \times 10^{-3}$   $[OH^-] =$  \_\_\_\_\_ pH = \_\_\_\_\_ pOH = \_\_\_\_\_
- c)  $[H^+] =$  \_\_\_\_\_  $[OH^-] =$  \_\_\_\_\_ pH = **9.2** pOH = \_\_\_\_\_
- d)  $[H^+] =$  \_\_\_\_\_  $[OH^-] =$  \_\_\_\_\_ pH = \_\_\_\_\_ pOH = **5.7**
- e)  $[H^+] =$  \_\_\_\_\_  $[OH^-] = 8.4 \times 10^{-6}$  pH = \_\_\_\_\_ pOH = \_\_\_\_\_
- f)  $[H^+] =$  \_\_\_\_\_  $[OH^-] =$  \_\_\_\_\_ pH = **2.6** pOH = \_\_\_\_\_

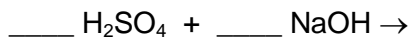
2. Predict the results of the following hydroxide neutralization reactions; then balance the equations.



3. Complete and balance the following equations, then answer the question that follows.



If it takes 25.5mL of 0.2M LiOH to completely neutralize 15.0mL of a sample of the strong acid HBrO<sub>4</sub>, what is [HBrO<sub>4</sub>]? pH?



What is the molarity of a NaOH solution if it takes 8.7mL of a 0.1M H<sub>2</sub>SO<sub>4</sub> solution to neutralize a 15mL sample of the NaOH? pH?



A 10mL sample of Ba(OH)<sub>2</sub> is titrated to its endpoint with 16.4mL of 0.05M HNO<sub>3</sub>. What was the concentration of the Ba(OH)<sub>2</sub> solution? pH?