

WKS  
Acid-Base Titrations

Name \_\_\_\_\_  
Period \_\_\_\_\_ Date \_\_\_\_\_

- 1) What kind of a reaction is occurring during the titration of an acid and base?
- 2) What are the products of an acid-base titration?
- 3) Write *balanced* neutralization equations for the following acid-base titrations:
  - a)  $\text{HNO}_3$  (nitric acid) and  $\text{CsOH}$  (cesium hydroxide)
  - b)  $\text{HBr}$  (hydrobromic acid) and  $\text{Ca(OH)}_2$  (calcium hydroxide)
  - c)  $\text{H}_2\text{CO}_3$  (carbonic acid) and  $\text{KOH}$  (potassium hydroxide)
  - d)  $\text{HC}_2\text{H}_3\text{O}_2$  (acetic acid) and  $\text{LiOH}$  (lithium hydroxide)
- 4) What quantity is being *monitored* in a titration? \_\_\_\_\_
- 5) What quantity is being *measured* in a titration? \_\_\_\_\_
- 6) What is an indicator? What is an indicator used for?
- 7) Explain the following terms:
  - a) Equivalence Point
  - b) End Point
- 8) Determine the molarity of a  $\text{LiOH}$  solution if 25.0 mL of the solution is neutralized by 18.38 mL of 0.112 M  $\text{HNO}_3$  solution. [What is the mole ratio?]
- 9) Determine the molarity of an  $\text{H}_2\text{CO}_3$  solution if 25.0 mL of the solution is neutralized by 48.13 mL of 0.187 M  $\text{KOH}$  solution. [See problem 3c for the balanced equation.]