Worksheet: Neutralization and Titration

- Name_
- 1. Give the word equation for the neutralization reaction of an acid and a base.
- 2. Complete these equations:

HCl + LiOH \rightarrow

 $HC_2H_3O_2 + Mg(OH)_2 \rightarrow$

- 3. A ______ is a laboratory method used to determine the concentration of an acid or a ______ in solution by performing a ______ reaction with a standard solution.
- 4. At the ______ of the titration, the indicator changes color, which indicates neutralization. Once neutralized, moles of ______ and moles of ______ are equal.
- 5. In a titration of HCl with NaOH, 100.0 mL of the base was required to neutralize 20.0 mL of 5.0 M HCl. What is the molarity of the NaOH? (Be sure to write the neutralization reaction.)
- 6. In a titration of H_2SO_4 with NaOH, 60.0 mL of 0.020 M NaOH was needed to neutralize 15.0 mL of H_2SO_4 . What is the molarity of the acid? (Be sure to write the neutralization reaction.)

7. If 10.0 mL of 0.300 M KOH are required to neutralize 30.0 mL of gastric juice (HCl), what is the molarity of the gastric juice?