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

$$
\begin{aligned}
& \mathrm{HCl}+\mathrm{LiOH} \rightarrow \\
& \mathrm{HC}_{2} \mathrm{H}_{3} \mathrm{O}_{2}+\mathrm{Mg}(\mathrm{OH})_{2} \rightarrow
\end{aligned}
$$

3. $A$ $\qquad$ is a laboratory method used to determine the concentration of an acid or a $\qquad$ in solution by performing a
$\qquad$ reaction with a standard solution.
4. At the $\qquad$ of the titration, the indicator changes color, which indicates neutralization. Once neutralized, moles of $\qquad$ and moles of $\qquad$ are equal.
5. In a titration of HCl with $\mathrm{NaOH}, 100.0 \mathrm{~mL}$ 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 $\mathrm{H}_{2} \mathrm{SO}_{4}$ with $\mathrm{NaOH}, 60.0 \mathrm{~mL}$ of 0.020 M NaOH was needed to neutralize 15.0 mL of $\mathrm{H}_{2} \mathrm{SO}_{4}$. 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 $(\mathrm{HCl})$, what is the molarity of the gastric juice?
