

TITRATION PROBLEMS

1. Calculate the volume of 0.500 mol/L $\text{NaOH}_{(aq)}$ required to titrate 300.0 mL of 0.200 mol/L $\text{HCl}_{(aq)}$?
2. If 250.0 mL of 0.300M $\text{Ca}(\text{OH})_2$ is required to titrate 600.0 mL of $\text{HNO}_{3(aq)}$, what is the concentration of $\text{HNO}_{3(aq)}$?
3. Calculate the mass of NaOH required to titrate 400.0 mL of 0.50 M $\text{HBr}_{(aq)}$.
4. If 8.75 g of $\text{Ba}(\text{OH})_2$ neutralizes 8.00 L of $\text{HCl}_{(aq)}$, what is the concentration of $\text{HCl}_{(aq)}$?
5. Calculate the volume of calcium hydroxide required to titrate 500.0 mL of 0.030 M phosphoric acid.
6. A 8.24 g sample of a solid organic acid is dissolved in water. It is found that 47.3 mL of 0.100 M NaOH are needed to titrate the acidic solution. Assuming that there is only one hydrogen in the acidic solid, determine the molar mass of the solid acid. What would the molar mass be if the acid has two hydrogens?