

Topic 8.4 Worksheet

1. Give the net-ionic reaction of $\text{HCl}(\text{aq})$ reacting with $\text{NaOH}(\text{aq})$.
2. Give the net-ionic reaction of $\text{HC}_2\text{H}_3\text{O}_2(\text{aq})$ reacting with $\text{NaOH}(\text{aq})$.
3. Give the net-ionic reaction of $\text{NH}_3(\text{aq})$ reacting with $\text{HCl}(\text{aq})$.
4. For a strong acid/strong base titration, explain how to calculate the pH when ...
 - a. No base has been added.
 - b. Some base has been added but not enough to reach equivalence.
 - c. Enough base has been added to reach equivalence.
 - d. Enough base has been added to go beyond equivalence.

5. For a weak acid/strong base titration, explain how to calculate the pH when ...
- No base has been added.
 - Some base has been added but not enough to reach equivalence.
 - Enough base has been added so that it is halfway to equivalence.
 - Enough base has been added to reach equivalence.
 - Enough base has been added to go beyond equivalence.
6. For a strong acid/weak base titration, explain how to calculate the pH when ...
- No acid has been added.
 - Some acid has been added but not enough to reach equivalence.
 - Enough acid has been added so that it is halfway to equivalence.
 - Enough acid has been added to reach equivalence.

e. Enough acid has been added to go beyond equivalence.