

Chemistry 20 - Unit D - Acid-Base Titration Curves and Indicators

Name: _____

- 1) In the titration of dilute ammonia with dilute hydrochloric acid, a trial pH curve titration found the equivalence point pH of the solution to be 4.8. Explain why bromocresol green is a better indicator choice than alizarin yellow for this titration.

Answers will vary,

Hint: Data Book.

- 2) Why must only a very small amount of indicator be used in a titration analysis?

Answers will vary

- 3) If congo red indicator is used in the titration of dilute nitric acid, $\text{HNO}_{3(aq)}$, with dilute sodium hydroxide, $\text{NaOH}_{(aq)}$, will the indicator endpoint of the titration correspond to the equivalence point? Explain, using a sketch of the pH titration curve to illustrate your reasoning.

Hint: SA titrated with a
SB... notes...

Answers will vary.

- 4) For a titration analysis to determine the concentration of an oxalic acid solution, complete the following:
a) What information must you have in order to select an indicator for this reaction?

Answers will vary.

- b) What equipment and procedure would be required to get this information?

Answers will vary

- 5) Why is it necessary to start a titration analysis with at least one standard solution?

Hint: known, well
made, exact...

Answers will vary.