

Titration of a H_3PO_4 Acid Solutions Pre-Lab

1. What does stoichiometric mean?
2. Write out the Henderson-Hasselbach equation. Define all of its parts.
3. What is the difference between monoprotic, diprotic, and triprotic acids?
4. What area of a titration curve would you want to look at to find the K_a value?
5. What does it mean when the pH and $\text{p}K_a$ are equal ($\text{pH} = \text{p}K_a$) ?
6. Draw a weak acid titration curve and label all of the important areas.
7. If you have 15 mL of a 0.020 M diprotic acid that was titrated with 0.030 M NaOH, at what volumes would you see the equivalence points? Sketch and label the titration curve.
8. $M_1V_1 = M_2V_2$. When is this equation to be used? Should it be used for this lab?

Lab Notebook:

Fill out the header information

Write out a statement of purpose

Write down any equations you might need to use

Sketch and label the parts of a titration curve to reference while doing the lab