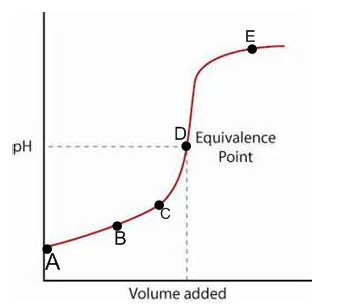
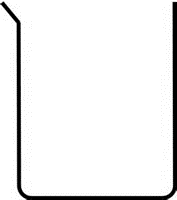
Objective: Determine the concentration of a household vinegar solution.   
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

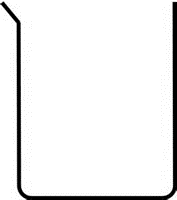
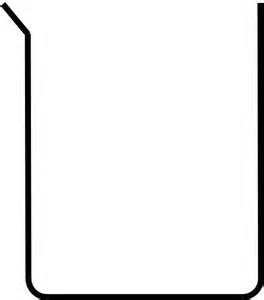
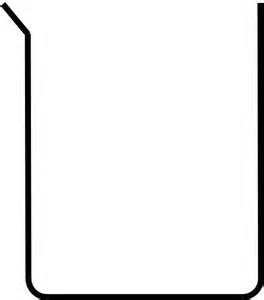
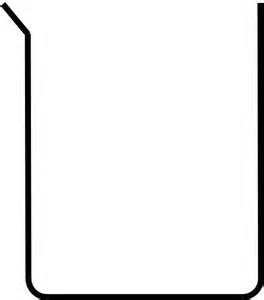
1. Set up titration burette system.
   1. Known base is NaOH with a concentration of \_\_\_\_\_\_\_\_M to be added to burette
   2. Use \_\_\_\_ mL of vinegar solution to be added to beaker.
   3. Add pH meter.
2. You will be adding the base to the vinegar in small amounts recording the volume and the pH over the course of the titration. (1st trial: test pH every 2ml, 2nd trial: larger amounts until you reach close to equivalence then every ½ ml.)
   1. Add pH
   2. Stir
   3. Hit “keep” button
   4. Repeat.
3. Print graph. Printer across the hall is HHS-E116. (staple to this sheet when submitted )
4. Repeat with second trial.

Calculations and questions.

1. Determine the concentration of the vinegar for each trial.



1. Draw the particulate drawing at various points in the graph.

[](https://images.search.yahoo.com/images/view;_ylt=AwrB8pMamENVblsA.4uJzbkF;_ylu=X3oDMTIzNWx0dWJiBHNlYwNzcgRzbGsDaW1nBG9pZANkOWQ4M2RiZTAxMTI5ZjQ5MWQyYTlmMmM5NGI1ZWNiMgRncG9zAzg2BGl0A2Jpbmc-?.origin=&back=https://images.search.yahoo.com/search/images?p%3DBeaker%26fr%3Dyfp-t-901%26fr2%3Dpiv-web%26nost%3D1%26tab%3Dorganic%26ri%3D86&w=528&h=598&imgurl=www.clker.com/cliparts/C/q/8/e/p/2/beaker-hi.png&rurl=http://www.clker.com/clipart-beaker.html&size=+6.6KB&name=%3cb%3eBeaker%3c/b%3e+clip+art&p=Beaker&oid=d9d83dbe01129f491d2a9f2c94b5ecb2&fr2=piv-web&fr=yfp-t-901&tt=%3cb%3eBeaker%3c/b%3e+clip+art&b=61&ni=21&no=86&ts=&tab=organic&sigr=118tg157d&sigb=138k8o5np&sigi=11g3nthg5&sigt=10mraiu2d&sign=10mraiu2d&.crumb=GcwoGqPLdQu&fr=yfp-t-901&fr2=piv-web)a b

c.

d. e.