**Titration Pre Lab Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period\_\_\_\_\_\_\_**

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| 1.  The point at which the amount of base from a buret is equal to the amount of acid in the erlenmeyer flask | A.  NaOH |
| 2.  Process of determining an unknown acid by reacting it with a  known base | B   Erlynmeyer flask |
| 3.  Chemical placed in the buret | C.  Equivalence point |
| 4.  Stabile chemical used to determine the concentration of  an unknown acid. | D.  Buret |
| 5.  Unknown concentration of an acid  | E.  Phenolphthalein |
| 6.  Glassware in which the unknown acid is placed  | F.  titrand |
| 7.  Chemical used to indicate the equivalence point has been reached. | G.  Endpoint |
| 8.  Glassware used to measure the volume of base used. | H.  Titration |
| 9.  Color changes from clear to faint pink | I.   Titrant |

10.  List 2 characteristics of a primary standard.

 11.  Diagram the set up for a titration.  Identify all the equipment that would be needed?

12.  If it takes 37 mL of 0.1 M NaOH to neutralize 75 mL of an HCl solution, what is the concentration of HCL ?

13.  What is an indicator and what is its job in a titration?

14.  What is a buret and why is it important in a titration? What goes in the buret?

**True of False**

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|  | 15.  The buret should be rinsed with the titrant prior to filling to the top |
|  | 16.  Extra acid removed from the stock acid bottle should be returned        to the bottle rather than discarding down the drain. |
|  | 17.  A titration should be stopped as soon as the color begins to turn |
|  | 18.  A magnetic stirrer should be used when performing a titration |
|  | 19.  Safety goggles must be worn when titrating with a non-hazardous        chemical |
|  | 20.  It is important to always place the standard in the buret and the        sample in the erlenmeyer flask. |
|  | 21.  A serological pipet should be used to pipet 25.0 ml of sample into       the erlenmeyer flask |
|  | 22.  Titrants should be added quickly to complete the reaction in a short       time to avoid errors |
|  | 23.  When finished, burets should be placed in the pipet washer with the       tip pointed upward. |
|  | 24.  Titrations must be stopped within 1 drop of the final color change |