**Name: Period: Seat#:**

**Worksheet #14**

**Directions:**

* This sheet is taking the place of a formal lab report…so treat it as if it actually matters! Be detailed, thorough, take care in drawing data tables, etc.
* Show all work for calculations.

**Prelab Questions:**

Complete these questions before you start your titration.

|  |  |
| --- | --- |
| 1. What is the titrand for this lab?
 | 1. What is the titrant for this lab? Include the concentration.
 |
| 1. What is the indicator being used for this lab?
 | 1. What color shift do you expect to see for this indicator?
 |

**Data Table:**
Set up a complete, detailed, professional looking data table that is appropriate for the information you will be collecting during this lab. Don’t forget to label things!

**Calculations:**

Show all necessary calculations to determine the unknown concentration of the titrand.

**Post Lab Questions:**

1. Ask your instructor for the correct concentration of the titrand. Show your calculation for your percent error.
2. What may have led to someone finding a concentration that was too high? Describe specific experimental errors. *(You cannot just say “human error!”)*
3. What may have led to someone finding a concentration that was too low? Describe specific experimental errors. *(You cannot just say “human error!”)*
4. Another lab experiment was conducted. This time you were told that you titrated 4.5 g of an unknown acid. It took 68.4 mL of a 0.55 M NaOH to reach the equivalence point. What is the molar mass of this unknown acid?