Unknown # _____

Objective: To titrate an unknown sample of acid with a standardized base solution and determine the CONCENTRATION of the unknown in Molarity.

Reaction: $NaOH_{(aq)} + CH_3COOH_{(aq)} \rightarrow NaCH_3COO_{(aq)} + H_2O_{(e)}$
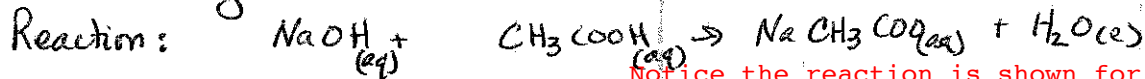
Notice the reaction is shown for the main titration, other pertinent reactions should be shown here also.

PROCEEDURE:

1. Obtain a solution of Standerdized base.

2. Prime a burett ~~by~~ with ~10 mL of Base

3. Aquire a sample and record unknown number (also at top!)

4. Quantitatively transfer unknown to 100 mL volumetric flask and fill to the line with distilled water.

5. ~~USE A pipet to Transfer~~ prime a 10.00 mL pipet with the unknown Acid solution

6. pipet 10.00 mL of Acid into an 125 mL Erlenmeyer flask, Add ~2 drops pthenopthalene indicator, and ~25 mL distilled water.

7. Titrate the erlenmyer flask mixture with the base in the buret until the solution is very light pink

8. Repeat until reproducible (4 or more trials).

Observations:

Concentration NaOH _____

Notice how the notebook is written and prepared so that the experiment is easily completed and easy for the reader to follow and understand.

unknown number _____

Unknown number in two places so you don't forget.

Mistakes are ok, one line through them, do not black them out!

Trial data for each trial in tablel on next page.

EXP. NUMBER	EXPERIMENT/SUBJECT		DATE	
NAME		LAB PARTNER	LOCKER/DESK NO.	COURSE & SECTION NO.

<u>Data:</u>

Table 1: Titration Trials

Trial #	T1	T2	T3	T4
Amount of Acid (mL)	10.00			
Initial burett reading (mL)				
Final burett reading (mL)				
Volume base (mL)				
~~Molarity of Unknown Acid (M)~~				
Endpoint Color				
Valid or Not, why				
Molarity of unknown Acid (M)				

Notice the data table is already setup and is well organized with units!

You could restart the protocol again if there are more steps as needed.

SIGNATURE	DATE	WITNESS/TA	DATE

NOTE: INSERT DIVIDER UNDER COPY SHEET BEFORE WRITING