In this experiment, vinegar will be titrated with NaOH of a known concentration to determine the unknown concentration of acetic acid in vinegar. Once the molarity of the unknown is determined, using dimensional dialysis will inform us of the exact percentage of acetic acid in vinegar. The purpose of this experiment is to be able to break down the percentage of an compound. Store bought vinegar typically ranges from 1-6% acetic acid (may be higher). Through this experiment from titrating, the percentage of a measured amount of vinegar will allow us to determine approximately how much is in that sample.