Equilibrium Constant via Titration

Student Name:

Partner Name:

Date	Instructor Initials	Grade

Part A

Volume of Ethanol (ml) =

Volume of Acetic Acid (ml) =

Show your calculation of the initial concentration of ethanol.

Show your calculation of the initial concentration of acetic acid.

Part C		
Mass of KHP (g) =		
Initial Volume (ml)	Final Volume (ml)	Volume Added (ml)

Show your calculation of the sodium hydroxide concentration

Average Sodium Hydroxide Concentration (M) =

Part D		
Initial Volume (ml)	Final Volume (ml)	Volume Added (ml)

Show your calculation of the initial acetic acid concentration.

Compare the initial acetic acid concentration determined in Part A to this value. Using the value in Part A as the standard, calculate the %Error of the experimental value determined in Part C. Which do you feel is more accurate?

Part E				
	Trial			
	1	2	3	4
Initial Volume (ml)				
Final Volume (ml)				
Volume Added (ml)				

Calculate the average volume required to titrate the blank solution.

Part F				
	Trial			
	1	2	3	4
Initial Volume (ml)				
Final Volume (ml)				
Volume Added (ml)				

Calculate the equilibrium acetic acid concentration for trial one.

Calculate the equilibrium acetic acid concentration for trial two.

Calculate the equilibrium acetic acid concentration for trial three.

Average Equilibrium Acetic Acid Concentration (M) =

Calculate the equilibrium constant for the reaction using the initial concentrations calculated in Part A and the average equilibrium acetic acid concentration.