

Name: _____

Section: _____

Partner's Name: _____

Date: _____

**VOLUMETRIC ANALYSIS OF AN ACID SOLUTION
DATA SHEET**

Part A: Standardization of NaOH

Stoichiometric Equation for the Acid-Base Reaction:

Mass of oxalic acid dihydrate, $\text{H}_2\text{C}_2\text{O}_4 \cdot 2\text{H}_2\text{O}$, g _____

Number of moles of $\text{H}_2\text{C}_2\text{O}_4 \cdot 2\text{H}_2\text{O}$, mol _____

Volume of the volumetric flask, mL _____

Concentration of $\text{H}_2\text{C}_2\text{O}_4 \cdot 2\text{H}_2\text{O}$ solution, $\text{mol} \cdot \text{L}^{-1}$ _____

	<u>Titration 1</u>	<u>Titration 2</u>	<u>Titration 3</u>
Final burette reading, mL	_____	_____	_____
Initial burette reading, mL	_____	_____	_____
Volume of NaOH delivered, mL	_____	_____	_____
Volume of oxalic acid used, mL	_____	_____	_____
Moles of oxalic acid used, mol	_____	_____	_____
Moles of NaOH consumed, mol	_____	_____	_____
Concentration of NaOH, mol/L	_____	_____	_____
Average concentration of NaOH, $\text{mol} \cdot \text{L}^{-1}$		_____	

Part B: Determination of the unknown concentration of an HCl Solution

Stoichiometric Equation for the Acid-Base Reaction:

	<u>Titration 1</u>	<u>Titration 2</u>	<u>Titration 3</u>
Final burette reading, mL	_____	_____	_____
Initial burette reading, mL	_____	_____	_____
Volume of NaOH delivered, mL	_____	_____	_____
Moles of NaOH used, mol	_____	_____	_____
Moles of the acid used, mol	_____	_____	_____
Volume of the acid consumed, mL	_____	_____	_____
Concentration of the acid, mol·L ⁻¹	_____	_____	_____
Average concentration of the acid, mol·L ⁻¹		_____	