

Report

Name _____

Section _____

A. Practice Titrations

Trial 1		Trial 2		Trial 3	
Acid	Base	Acid	Base	Acid	Base
Buret Reading					
Final (mL)	_____	_____	_____	_____	_____
Initial (mL)	_____	_____	_____	_____	_____
Vol. used (mL)	_____	_____	_____	_____	_____

Calculations (You must show your method and the number of significant figures must be correct. Assume that the molarity of the NaOH is exactly 0.1000.)

Trial 1

Trial 2

Trial 3

Average molarity of the HCl: _____
Range (highest value - lowest) _____

B. Calculations for amount of NaOH required to make 500. mL of 0.1 M solution:

C. NaOH soln prepared:

Weight beaker + NaOH _____

beaker _____

g NaOH _____

Standardization of NaOH with $\text{KHC}_8\text{H}_4\text{O}_4$

Equation for the reaction:

	Sample 1	Sample 2	Sample 3
Weight of sample (g)	_____	_____	_____
Final NaOH (mL)	_____	_____	_____
Initial NaOH (mL)	_____	_____	_____
Vol. Used (mL)	_____	_____	_____
<u>M</u> NaOH	_____	_____	_____

Average molarity of the NaOH: _____

Range _____

Calculations (You must show your method and the number of significant figures must be correct.)

Sample 1

Sample 2

Sample 3

Report

Name_____

Unknown#_____

D. Analysis of Unknown HCl

Equation for the reaction:

	Trial 1		Trial 2		Trial 3	
	Acid	Base	Acid	Base	Acid	Base
Buret Reading						
Final (mL)	_____	_____	_____	_____	_____	_____
Initial (mL)	_____	_____	_____	_____	_____	_____
Vol. Used (mL)	_____	_____	_____	_____	_____	_____

Calculations (You must show your method and the number of significant figures must be correct.)

Trial 1

Trial 2

Trial 3

AVERAGE MOLARITY OF HCl:_____

True Value_____

Range_____

Absolute Error_____

Percent Error_____

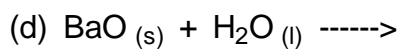
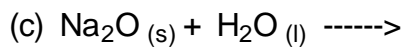
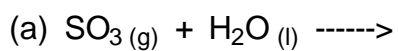
Name_____

Questions

1. Define and give an example of a monoprotic acid.

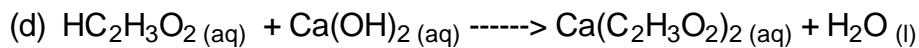
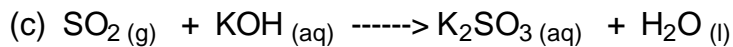
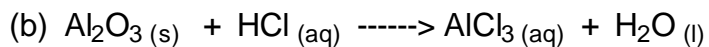
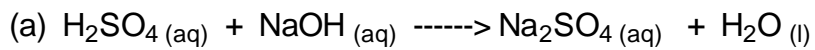
2. Define and give an example of a diprotic acid.

3. Complete and balance the following equations.



Name_____

4. Balance the following equations; write the ionic equations and the net ionic equation (if different from the ionic equation).



Problems (You must show your method of solution!)

- I. Calculate the molarity of a solution prepared by dissolving 0.600 g of $\text{KHC}_8\text{H}_4\text{O}_4$ in enough water to make 50.0 mL of solution.

_____M

2. Calculate the molarity of a solution prepared by dissolving 0.600 g of $\text{H}_2\text{C}_2\text{O}_4 \cdot 2\text{H}_2\text{O}$ in enough water to make 50.0 mL of solution.

_____M

Name_____

3. If 30.65 mL of $\text{Ca}(\text{OH})_2$ solution is needed to react with 0.240 g of primary standard $\text{H}_2\text{C}_2\text{O}_4 \cdot 2\text{H}_2\text{O}$, what is the molarity of the $\text{Ca}(\text{OH})_2$ solution?

_____M

4. If 41.40 mL of 0.1283 M NaOH solution is needed to neutralize 50.00 mL of an H_2SO_4 solution what is the molarity of the H_2SO_4 solution?

_____M

5. (a) How many millimoles of NaOH are contained in 50.0 mL of 0.125 M NaOH solution?

(b) How many milliliters of 0.100 N H_2SO_4 solution would be needed to neutralize the above 50.0 mL of NaOH solution?

(c) How many grams of $\text{H}_2\text{C}_2\text{O}_4 \cdot 2\text{H}_2\text{O}$ would be needed to neutralize 50.0 mL of the above NaOH solution?
