

Name: _____

Section: _____

Data and Calculations for Experiment 12

	Sample 1	Sample 2
Mass of flask and KHP		
Mass of empty flask		
Mass of KHP		
Initial buret reading		
Final buret reading		
Volume of base used		

1. Moles of acid (KHP, Molar mass = 204.2)

Sample 1:

Sample 2:

2. Moles of base used to neutralize acid

Sample 1:

Sample 2:

3. Molarity of base (NaOH)

Sample 1:

Sample 2:

4. Average Molarity of Base:

Questions

1. A titration required 13.42 mL of 0.1638 M NaOH solution. How many moles of NaOH were in this volume?
2. A student weighed a sample of KHP and found it weighed 1.396 g. Titration of this KHP required 21.36 mL of base (NaOH). Calculate the molarity of the base.
3. Write and balance the equation for the neutralization of a sulfuric acid solution of unknown concentration by sodium hydroxide. Calculate the molarity of an unknown sulfuric acid solution if a 25.0 mL sample of the acid solution consumes 27.2 mL of 0.138 M NaOH solution in a titration.
4. What might happen to your calculated NaOH molarity if you used tap water instead of D.I. water to dissolve the KHP crystals or to rinse down the walls of the flask during the titration? *Hint: Tap water contains some calcium carbonate.*