FLINN SCIENTIFIC

Name_____

Laboratory Report

	Juice 1: _____		Juice 2: _____	
Rough Titration Data (Step 4)				
Estimated Volume of NaOH Needed to Titrate 20.0 mL of Juice				
Precise Molarity of NaOH Standard Solution				
	Trial 1	**Trial 2**	**Trial 1**	**Trial 2**
Initial Buret Reading				
Final Buret Reading				
Volume of NaOH Added at Endpoint*				

*Per 20.0 mL of juice.

1. Determine the volume of sodium hydroxide added at the endpoint for each trial and enter the results in the data table.

2. Calculate the number of moles of sodium hydroxide required to reach the endpoint for each trial.

3. Based on the mole ratio for the neutralization reaction of citric acid with sodium hydroxide, determine the number of moles of citric acid present in 20.0 mL of juice.

© 2019, Flinn Scientific, Inc. All Rights Reserved. Reproduction permission is granted from Flinn Scientific, Inc. Batavia, Illinois, U.S.A. No part of this material may be reproduced or transmitted in any form or by any means, electronic or mechanical, including, but not limited to photocopy, recording, or any information storage and retrieval system, without permission in writing from Flinn Scientific, Inc.

4. Calculate the mass in grams of citric acid in 20.0 mL of juice for each trial.

5. What is the **average concentration** of citric acid in the fruit juice in units of grams of citric acid per 100 mL of juice?

6. Compare the average citric acid concentration in different juices: Based on class data, rank the juices from most acidic to least acidic. Does this ranking agree with the predictions made in *Pre-Lab Question 1*.

© 2019 Flinn Scientific, Inc. All Rights Reserved.