DETERMINATION OF ASCORBIC ACID IN VITAMIN C

Date:_____ Name:_____Lab Day/Time:_____

Object

To determine the percentage of ascorbic acid in (i) a vitamin C tablet, and (ii) to titrate an unknown solution of ascorbic acid.

Procedure

As in Chem 1110 lab manual, pages 48 and 49.

Observations

Data

Table 1. Mass of KIO_3

Mass of KIO_3 and weighing boat (g)	
Mass of boat after KIO_3 emptied from it (g)	
Therefore mass of KIO_3 emptied into flask (g)	

Table 2. Titration Data

Unknonw Number:_____	Run 1	Run 2	Run 3
Volume of unknown solution pipetted (mL)			
Initial burette reading (mL of KIO_3)			
Final burette reading (mL of KIO_3)			
Volume of KIO_3 delivered (mL)			
End point colour and shade			

Calculations

In the space below, show the following calculations:

1. The % difference between all runs

2. The molarity of the KIO_3 solution in the 250 mL volumetric flask

3. Moles of IO_3^- used

4. Moles of I_3^- produced

5. Moles of ascorbic acid present

6. Mass of Ascorbic acid present

7. Mass of unknown solution that was used

8. % Ascorbic acid in unknown solution

Results

Table 3. Summary of Results

Average % Ascorbic Acid	
Which of runs 1,2 and 3 did you use to calculate the average?	

Discussion

Give one possible source of error beyond your reasonable control in the experiment, and state how and why this would affect your result

Questions

Attach any questions assigned by your lab instructor.