

Report Sheet: Acids & Bases: Titration Curves CHEM 111



Department of Chemistry

LAST NAME: _____ SEC # _____ LOCKER # _____

FIRST NAME: _____ DATE: _____

Name of Partner: _____

MeasureNet® workstation #: _____

RAW DATA

Record all numbers on this page in the proper format in blue or black ink only and using the correct number of significant figures or decimal places.

	Part 1 weak acid	Part 2 phosphoric acid	Part 3 juice
Molarity of NaOH titrant:	M		
Name of Acid Sample Analyzed:		H ₃ PO ₄ (aq).	
Volume of Acid Sample Pipetted:	mL	mL	mL

Record below all NaOH burette readings. These values are not used for any calculations, and are only taken as back-up if a MeasureNet® error occurs.

Initial Reading (the START value):	mL	mL	mL
Final Reading (the STOP value):	mL	mL	mL

RESULTS

Use the plotted Titration Curves to graphically determine the following features:

1 st Equivalence Point Volume:	mL	mL	mL
2 nd Equivalence Point Volume:	NA	mL	NA
pH @ Half-Equivalence Point: <i>this is pK_a for the weak acid</i>		NA	NA

Record below the calculated concentrations of the three acids. ALL CALCULATIONS MUST BE SHOWN ON THE BACK SIDE OF THIS REPORT SHEET OR ELSE NO MARKS WILL BE AWARDED.

Molarity of Acid Sample Analyzed:	M	M	M
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SHOW ALL CALCULATIONS BELOW.

Either pen or pencil is acceptable. When finished, please transfer the calculated molarities onto the last table on the other side of this report sheet.

Part 1 - Titration Curve for a Weak Acid

Calculate the molarity of the acid using the equivalence point:

_____ mol/L

Part 2 - Titration Curve for Phosphoric Acid

Calculate the molarity of the acid using the 1st equivalence point:

_____ mol/L

Part 3 - Titration Curve for a Juice

Calculate the acid molarity of the juice using the equivalence point:

_____ mol/L

STAPLE YOUR GRAPHS TO THE BACK OF THIS REPORT SHEET IN THE UPPER-LEFT CORNER AND IN THE ORDER OF PARTS 1 – 3.