

4 • Chemical Equations and Stoichiometry

Determining Molar Ratio Lab -- Grading Rubric

Pre-Lab Assignment	5	4	3	2	1	0
	Graph is drawn accurately including 0,50 and 50,0 points. Best fit lines are drawn using a ruler . Axes are labeled correctly showing mass of precipitate along the y-axis and volume of solutions along the x-axis. Units are shown. The equation is balanced based on information from the graph. Justification of the coefficients is included. Question about validity is answered correctly.					

PAP	3	2	1	0
	Purpose statement which encapsulates the reason for doing the lab is written in a complete sentence . All apparatus used is noted including items added on the day of the lab. The procedure is listed in numbered steps and includes enough information so someone else could repeat the lab.			
Data Table	3	2	1	0
	Data table is neat and clearly organized . Data values are labeled and written to the correct precision (significant figs). Three data points were taken on either side of the intersection.			
Graph	3	2	1	0
	Graph is drawn accurately and axes are labeled correctly showing ΔT ($^{\circ}\text{C}$) along the y-axis and volume of solutions along the x-axis. Lines are drawn that fit the data. Intersection of lines correctly shows maximum temperature .			
Questions	3	2	1	0
	All questions are answered. Either the questions are written or are clearly included in the answer. Statements are clearly written and correctly answer the questions.			
Conclusion	3	2	1	0
	Conclusion statement refers back to the purpose statement and summarizes the lab concisely and completely . Suggestions are given on ways to improve performance on the lab.			

A note about the purpose of laboratory reports

A laboratory report has three purposes:

- Reports give the reader a multi-layered look at what happened in the lab.
 - If a reader wants a summary of the lab, she/he can read the Purpose and the Conclusion. Together, these two statements should paint a brief, but complete picture of the lab.
 - If the reader wanted to explore some of the details of how the conclusions were found, they could read the Data Table and Questions as well.
 - If they were interested in repeating the lab, they would look at the Apparatus and Procedure as well as the other areas of the report.
- Reports give enough information so someone could repeat the lab. In other labs, this will also include showing how calculated values were obtained. For example, in this lab, how did you calculate ΔT ?
- Reports give you an opportunity to reflect on the laboratory experience and ponder the meaning of the lab. You should understand what you did and why you did what you did.