Name: **Lab TA:**

Mon	**Tue(am)**	**Tue(pm)**	**Wed**	**Thu(am)**	**Thur(pm)**	**Fri**

Lab Day

Grade

>95   >90   >85   >80   >70   <70

Report:

Prelaboratory Quiz Score:

Some Useful Information: $273.15 + °C$ = temperature in K
                                     760mmHg = 1 atm.
Vapor Pressure of Water:

"You are expected to plot a graph of P vT in order to determine the Vapor Pressure of water at the that you performed the experiment. Even in the unlikely event that that temperature is in fact listed!!

T(°C)	P, (mm Hg)	T(°C)	P, (mm Hg)	T(°C)	P, (mm Hg)	T(°C)	P, (mm Hg)
13.0	11.2	19.0	16.5	25.0	23.8	31.0	33.7
14.0	12.0	20.0	17.5	26.0	25.2	32.0	35.7
15.0	12.8	21.0	18.7	27.0	26.7	33.0	37.7
16.0	13.6	22.0	19.8	28.0	28.3	34.0	39.9
17.0	14.5	23.0	21.1	29.0	30.0	35.0	42.2
18.0	15.5	24.0	22.4	30.0	31.8	36.0	44.6

Data Collection and Calculations:

		Trial 1	**Trial 2**	**Trial 3** *(If necessary)*
1.	Barometric pressure (in Atmospheres):			
2.	Temperature (in Kelvin):			
3.	Mass of aluminum:			
	Moles of Al:			
4.	Initial buret reading:			
	Final buret reading:			
	Volume of H_2:			
5.	Moles of H_2 based on moles of Al:			
	H_2 Pressure:			
6.	Ideal Gas Constant:			
	Average value:			

For Trial 1: show calculational method for:

5. Moles of H_2 based on moles of Al.	6. The Ideal Gas Constant

Post Laboratory Question: *Your TA will not help you with this final question.*

The decomposition of sodium azide (NaN_3) solid to sodium liquid and nitrogen gas is used in air bags. What volume of nitrogen gas measured at 725 mm of Hg and 26°C is produced when 75.0g of sodium azide (molar mass = 65.01g/mol) decomposes.

Na: 22.99 g.mol^{-1} N: 14.01 g.mol^{-1}