Na	me:	_ Section:			
Da	ta and Calculations				
Un	known Number				
Atmospheric pressure		torr =		at	m
		Trial 1		Trial 2	
1.	Mass of dry flask with stopper		= _		
2.	Mass of flask, stopper, & condensed liquid		-		
3.	Mass of <u>condensed</u> liquid		-		
4.	Temperature of boiling water		-		
5.	Volume of flask (see flask)		= _		
6.	Molecular weight of sample)	(These values mus other. If not, a th			
7.	Average Molecular Weight* *Average only those values within the line	mit			

SHOW CALCULATIONS:

Qι	uestions (to be completed while in the laboratory)
1.	instructor. Solve for the empirical formula, and then using your determined molecular
	weight, solve for the molecular formula of your compound.
	Empirical Formula
	Molecular Formula
2.	Determine your percent error using your experimental molecular weight and the theoretical molecular weight determined via your molecular formula.
3.	Write the ideal gas law equation for molecular weight.
٥.	write the ideal gas law equation for molecular weight.

Section:

Name: _____

Post-lab Questions						
4.	It was found that 0.801 gram of vapor exerted a pressure of 744 torr at 100°C when confined to a 260 mL flask. If this vapor came from a volatile liquid, what is the molecular weight of the liquid?					
5.	Based on this experiment:					
	A. How do you experimentally determine the temperature of the unknown when it is a gas?					
	B. How do you experimentally determine the pressure of the unknown when it is a gas?					
6.	What is the purpose of cooling the flask?					
7.	Why will air rush into the cooled flask when the stopper is removed?					

Section:

Name: _____

Na	me:	Section:	
8.	How would each of the following procedoweight in this experiment? Give your reason		lar
	A. All of the liquid was not vaporized when	n the flask was removed from the water ba	th.
	B. The flask was not dried before the final	weighing with the condensed vapor insic	le.
	C. The fleck was left open to the atmospher	ra while it was being cooled, and the ston	30r
	C. The flask was left open to the atmospher was inserted just before the final weighi		Jei
	D. The flask was removed from the bath after the vapor had reached the temperature of		ore