

Name: \_\_\_\_\_  
Student ID: \_\_\_\_\_

### Latent Heat of Fusion Experiment

Part 1: (15 points) Complete five trials and enter the data (be sure to include all units) for each experiment into the following chart:

$V_i$	$T_i$	$T_f$	$V_f$

$M_{\text{ice}}$	$\Delta T_{\text{water}}$	$SH_{\text{water}}$	$LH_{\text{ice}}$

Part 2: (10 points) Using the data above and the supplementary sheet, calculate the latent heat of fusion for each trial and enter values in the chart above. Show all work.

Part 3: (10 points) In 1-2 paragraphs, explain how the lab is performed. This should be written as if you were instructing someone who was not familiar with this lab. Be sure to include all necessary details. Keep in mind the setup, the order of measurements, and why it is best done this way. This must be typed.

Part 4: (15 points) In 1-2 paragraphs: 1) Explain what is physically occurring. Use your knowledge of specific heat, latent heat, and the conservation of energy to help with this. 2) Discuss the importance of latent heating in the atmosphere.

#### OTHER NOTES:

All written responses must be typed. Try to type the equation, including the use of Microsoft Equation Editor in Word. If you submit anything handwritten that is unreadable, you subject yourself to losing points or receiving a complete zero. Poor grammar and/or spelling will result in lost points. Staple parts 2, 3, and 4 to this sheet.