

Analysis

Use your data to complete the following questions.

1. What was the temperature at which all the ice had melted?
2. What was the boiling point of the water? _____
3. Plot a graph of the data with time along the x-axis and temperature on the y-axis. Be sure to set up your scales in equal intervals and include units and a title. Connect the dots after you plot your points.

a. Describe the relationship between heat and temperature.

b. What is happening during the flat parts on your graph?

c. What temperature did your group's water boil at?

4. On your graph.....(no written answer on this lab sheet, just identify each directly on the graph)

- a. Identify where the phase changes are (changes from one state of matter to another). You should have two of these.
- b. Identify where the water was a solid, liquid, and gas.
- c. Identify where all the ice has melted.
- d. Identify where the water started to boil.

5. Staple your graph to the back of this lab sheet and turn in.

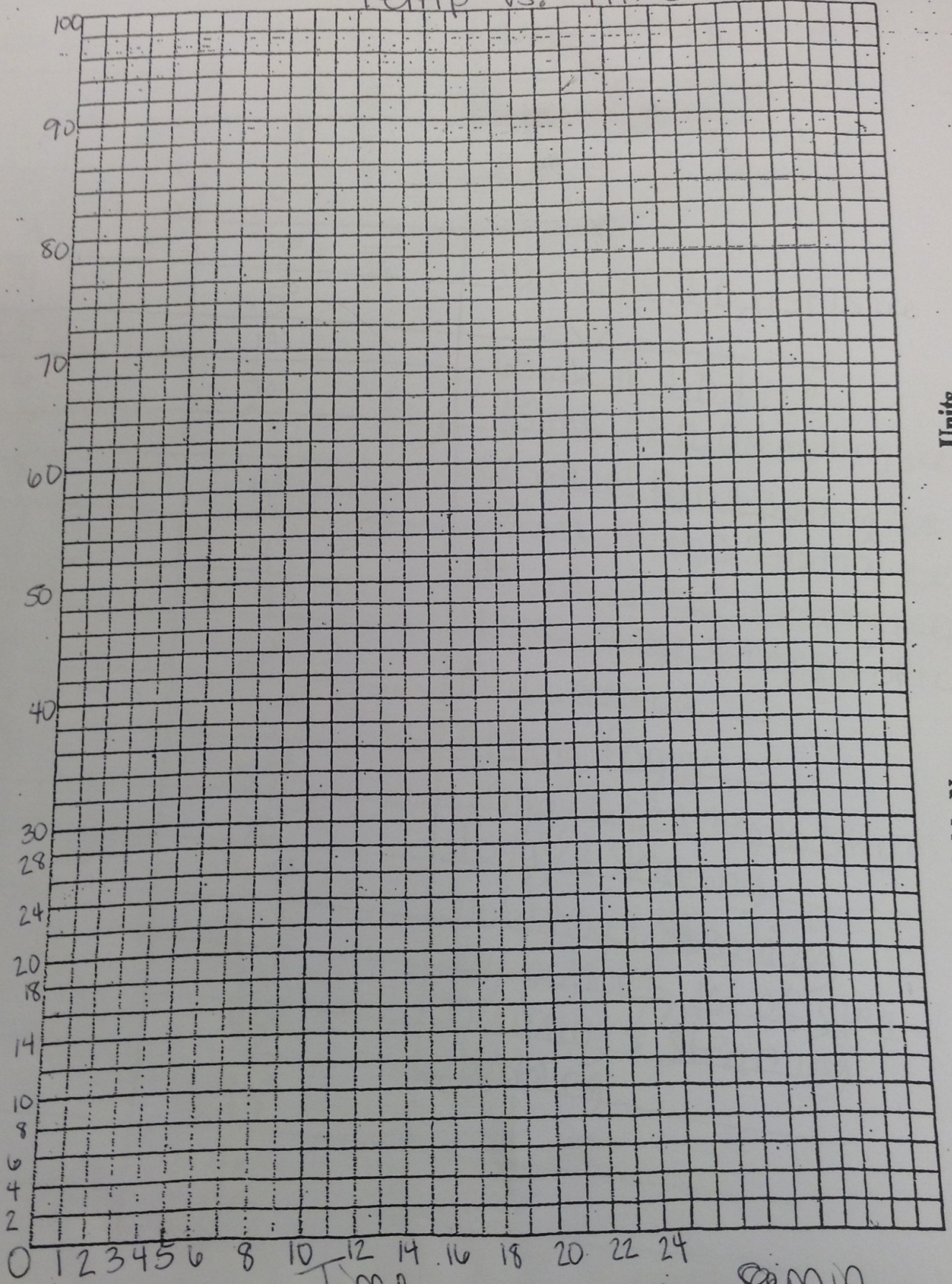
Subject _____

Name _____

Period _____

Temp vs. Time

Variable Name Temp Units °C



0 1 2 3 4 5 6 8 10 12 14 16 18 20 22 24
Variable Name Time Units min

Variable Name _____ Units _____

Data for Heating Curve of H₂O

Time (min)	Temp (°C)	Observation
0	0°	beaker full of ice
1	0°	25 mL of H ₂ O, rest is ice
2	0°	↓
3	0°	
4	0°	50 mL of H ₂ O, rest is ice
5	0.5°	↓
6	1°	65 mL of H ₂ O + ice
7	2°	95 mL of H ₂ O + melting ice
8	4°	110 mL of H ₂ O + melting ice
9	5°	125 mL of H ₂ O + melting ice
10	8°	125 mL of H ₂ O + melting ice
11	9°	125 mL of H ₂ O + tiny bit of ice
12	21°	All ice melted
13	35°	getting foggy
14	55°	foggy + starting to steam
15	70°	foggy + steaming
16	83°	bubbling + steaming
17	93°	big bubbles, lot of steam
18	93°	bubbling + steaming
19	93°	bubbling
20	93°	↓