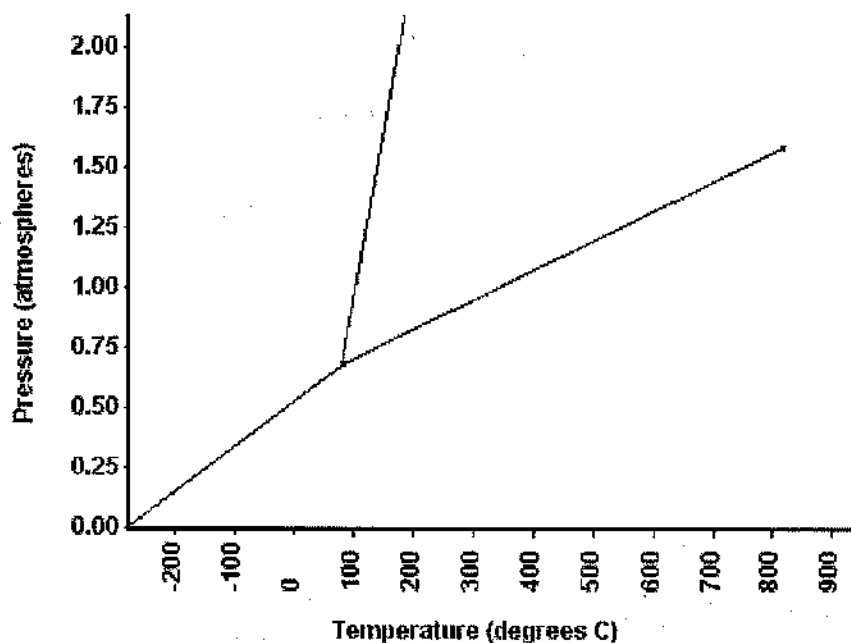


Name: \_\_\_\_\_

## Unit 8 Module 4 Review Sheet

1. Refer to the phase diagram below when answering the questions on this section:



- a) What is the normal freezing point of this substance? *Approximately 100-110°C*
- b) What is the normal boiling point of this substance? *Approximately 400°C*
- c) At what temperature and pressure does the *triple point* occur for this substance?

*Approximately 100C and just below 0.75 atm*

- d) If I had a sample of this substance at a pressure of 1.25 atm and a temperature of 300° C and lowered the pressure to 0.25 atm, what phase transition(s) would occur?

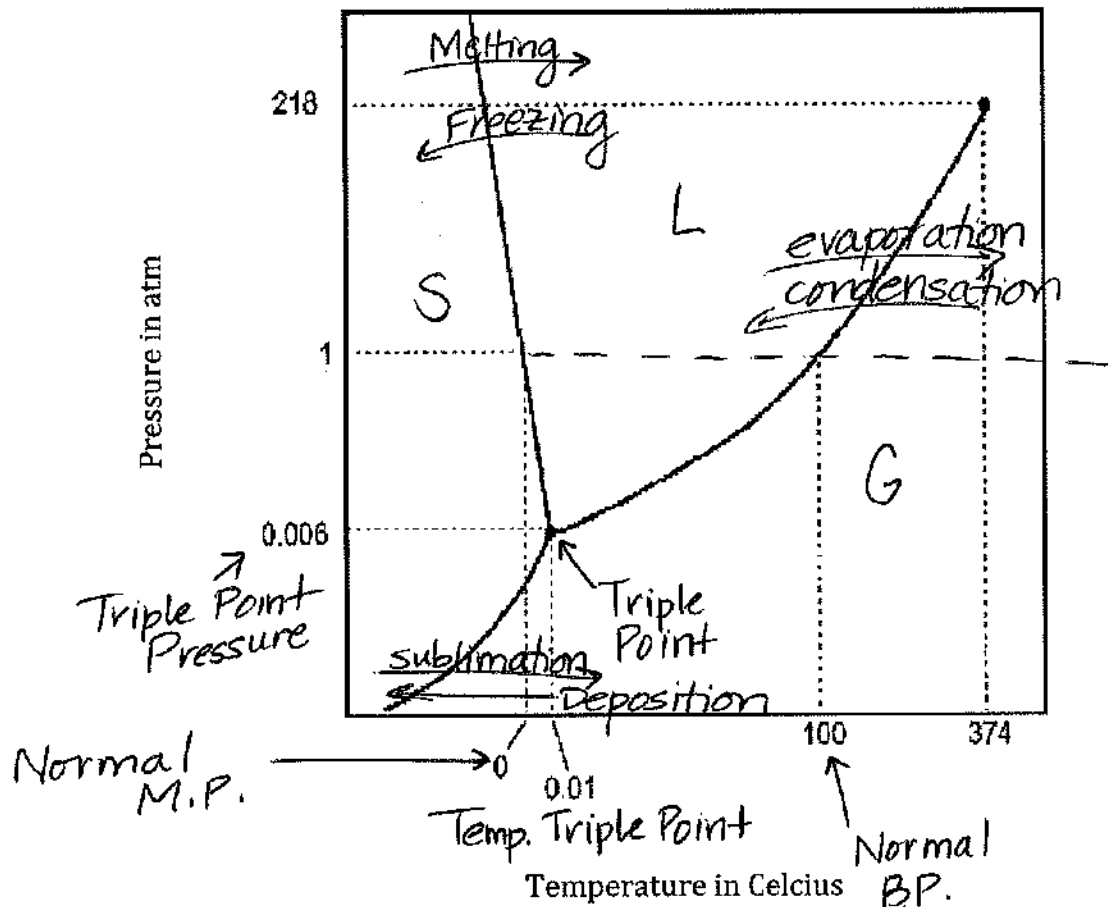
*Condensation*

- e) If I had a sample of this substance at a pressure of 1.00 atm and a temperature of 200°C and lowered the temperature to 0°C, what phase transition(s) would occur?

*Freezing*

2. Below is a rough sketch of a phase diagram of  $H_2O$ . Label the following:

- Triple point
- Liquid, solid, and gaseous sections
- Each of the six phase changes
- Normal boiling point
- Normal melting point



- |  |               |
|--|---------------|
| f) At 50°C and 5 atm, what is the phase?     | <b>Liquid</b> |
| g) At 200°C and 0.05 atm, what is the phase? | <b>Gas</b>    |
| h) At -50°C and 100 atm, what is the phase?  | <b>Solid</b>  |