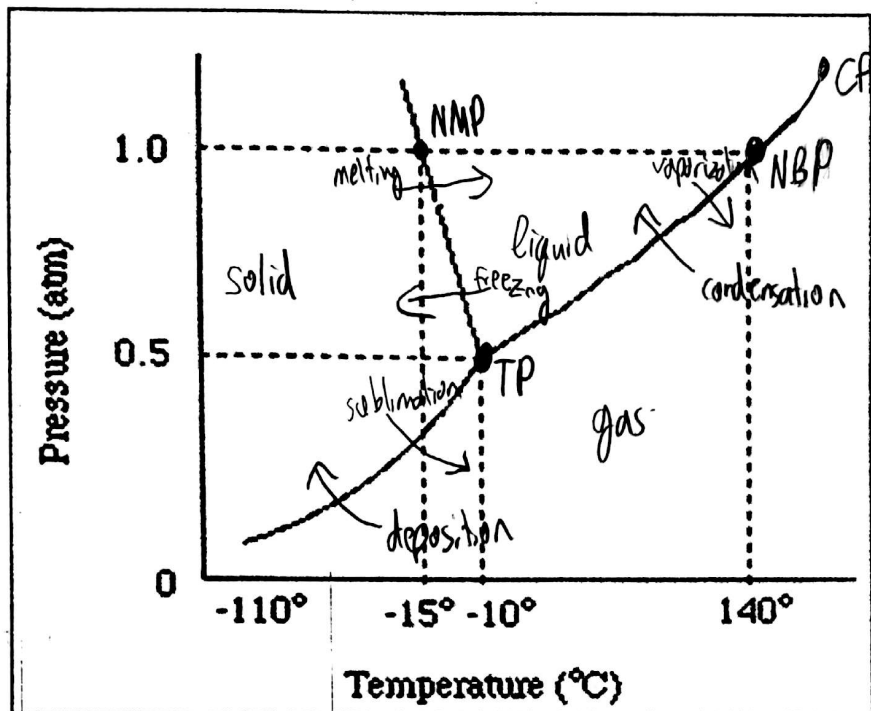


Phase Changes & Phase Diagram Mock Quiz

1. COMPLETELY label the 3 phase regions, the 6 phase changes, and the 4 points we discussed (triple, critical, normal MP, and normal BP).



- | |
|--------------|
| Deposition |
| Melting |
| Freezing |
| Vaporization |
| Sublimation |
| Condensation |

2. What is the pressure and temperature for the triple point? Give the 2 number values and the units!

0.5 atm & -10°C

3. The escape of gas molecules from the surface of a liquid (without heat or below boiling point) is known as ____.
- A) Melting B) Vaporization C) Effusion D) Evaporation E) Condensation

4. At what state/ phase is this substance in if it is at 15°C and 0.75 atm?

liquid

5. Why do we call it "normal" melting point and boiling point?

↳ B.P. @ 1 atm or sea level.

6. The direct change from a gaseous state to the solid state is called ____

deposition

7. What is the temperature of the normal boiling point of this substance?

140°C

8. What is the phase change for a substance at 1.0 atm and 50°C undergoes, if the pressure decreased to 0.25 atm?

Vaporization

9. If a substance is exactly on the liquid and gaseous line the rate of vaporization is ____.

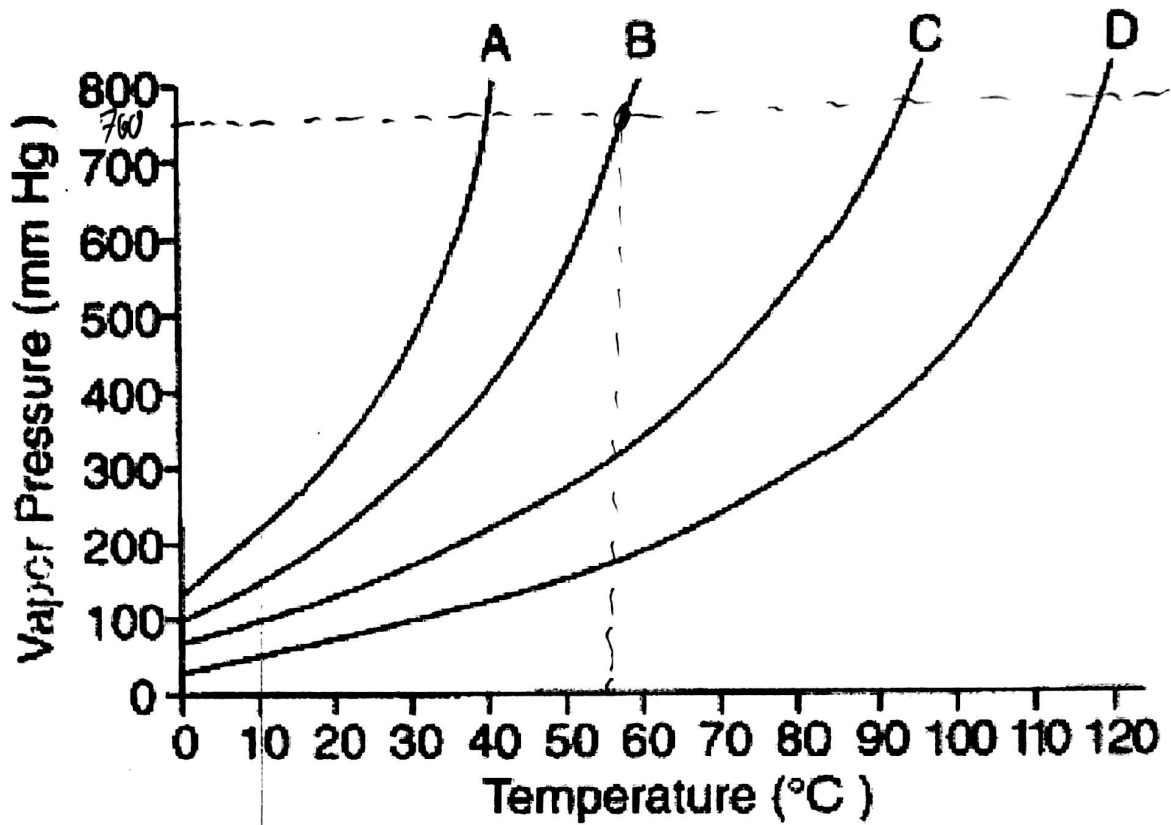
- A) Greater than the rate of condensation
 B) Less than the rate of condensation
C) Equal to the rate of condensation
 D) Greater than the rate of deposition
 E) Less than the rate of deposition

10. Based on this phase diagram, is the liquid state or the solid state denser?

slopes left = liquid is denser
 ex: H₂O

**Continue of backside

Use the following diagram to answer the following questions.



11. What is the standard pressure for this graph? Don't forget units!

760 mm Hg

12. What is the boiling point for substance B? Give an approximation. Don't forget units!

~55 °C