

Section 13.4 Phase Changes

In your textbook, read about phase changes.

Complete the table by writing the initial and final phases for each phase change and making a check (✓) in the correct energy column.

Phase Change	Phase		Energy	
	initial	final	required	released
1. Condensation				
2. Deposition				
3. Freezing				
4. Melting				
5. Sublimation				
6. Vaporization				

For each item in Column A, write the letter of the matching item in Column B.

Column A

- _____ 7. Temperature at which a liquid is converted into a crystalline solid
- _____ 8. Temperature at which the forces holding a crystalline lattice together are broken
- _____ 9. Temperature at which the vapor pressure of a liquid equals the external or atmospheric pressure

Column B

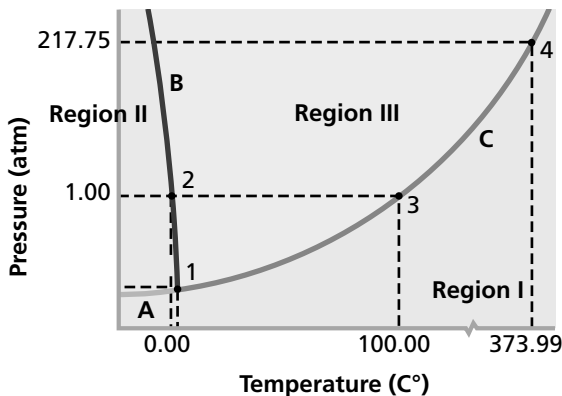
- a. boiling point
- b. freezing point
- c. melting point

CHAPTER 13 **STUDY GUIDE FOR CONTENT MASTERY**

Section 13.4 *continued*

In your textbook, read about phase diagrams.

Use the phase diagram for water to answer the following questions.



10. What variables are plotted on a phase diagram?

11. What phase of water is represented by each of the following regions?

- a. Region I _____
- b. Region II _____
- c. Region III _____

12. What does point 2 represent?

13. What is the temperature at point 3?

14. What does line A represent?

15. What is point 4 called? What does it represent?

