

Phase Diagram Answers

Phase Diagram 1

1. 100° C
2. 375 ° C
3. 100° C
4. It would vaporize at a pressure of ~0.75 atm.
5. 825° C
6. It would melt at ~100° C, then boil at ~175° C.

Mystery Compound X Phase Diagram

1. Extrapolating from this diagram it is most likely a gas.
2. All three phases will exist at 350°C and ~51 atm
3. At 45 atm and 100°C and raising temperature to 400°C will cause the compound to sublime.
4. No...At the temperatures and pressures that it forms a liquid, you would probably die.
5. The compound would change from a gas to a liquid. Condensation.

Chapter 11 #14-17 Phase Diagram

14. C. Carbon
15. A. There are two forms of the solid phase
16. B. solid diamond phase
17. B. Heat the graphite sample from 3000K to 5000K, maintaining a constant pressure of 0.004 atm.