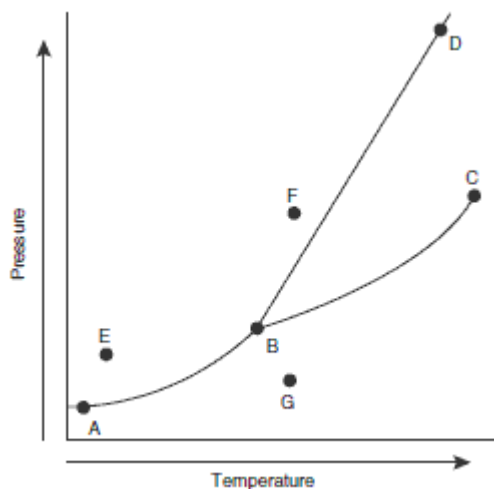


(1) Answer the following questions. You have 10 minutes. You may not use a calculator. You may use the tables at the back of the book.



The above figure shows a typical phase diagram for a one-component system. Use this diagram to answer the following questions.

- What is point C called? List the characteristics of this point.
- What happens to a substance at point E if the temperature is increased at constant pressure?
- Assume point F is at  $0^{\circ}\text{C}$  and 1 atm. Describe the changes that would occur when moving directly from point F to point G (still at  $0^{\circ}\text{C}$ ).
- Solid bismuth is less dense than liquid bismuth. How would this change the appearance of the diagram? Explain.