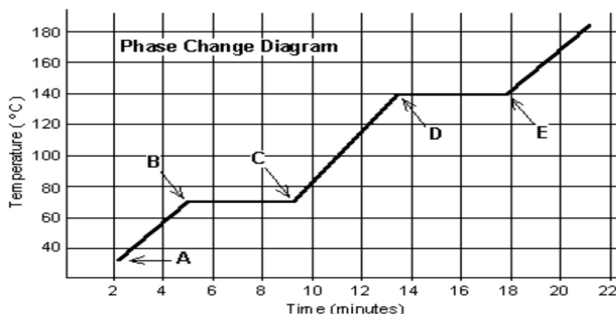


Name _____ Hour _____

Phase Change Worksheet

The graph was drawn from data collected as a substance was heated at a constant rate. Use the graph to answer the following questions.

At **point A**, the beginning of observations, the substance exists in a solid state. Material in this phase has _____ volume and _____ shape. With each passing minute, _____ is added to the substance. This causes the molecules of the substance to _____ more rapidly which we detect by a _____ rise in the substance.



At **point B**, the temperature of the substance is _____ °C. The solid begins to _____. At point C, the substance is completely _____ or in a _____ state. Material in this phase have _____ volume and _____ shape. The energy put to the substance between minutes 5 and 9 was used to convert the substance from a _____ to a _____. This heat energy is called the **latent (invisible) heat of fusion**.

Between 9 and 13 minutes, the added energy increases the _____ of the substance. During the time from **point D to point E**, the liquid is _____. By **point E**, the substance is completely in the _____ phase. Material in this phase has _____ volume and _____ shape. The energy put to the substance between minutes 13 and 18 converted the substance from a _____ to a _____ state. This heat energy is called the **latent (invisible) heat of vaporization**. Beyond **point E**, the substance is still in the _____ phase, but the molecules are moving _____ as indicated by the increasing temperature.

Which of these three substances was likely used in this phase change experiment? _____

Substance	Melting point	Boiling point
Bolognum	20 °C	100 °C
Unobtainium	40 °C	140 °C
Foosium	70 °C	140 °C

Word Bank: (Words may be used more than once and some may not be used at all!)

Definite, liquid, melted, vaporized, indefinite, move, gas, solid, temperature, faster, melt, heat, and slower.