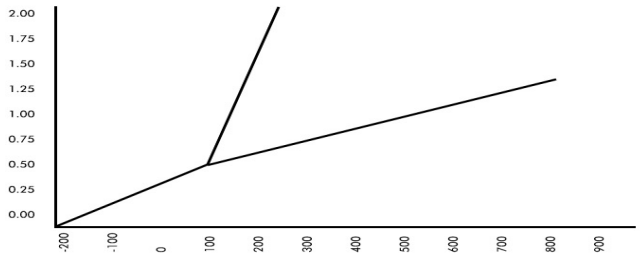
Name: _____ Date: _____

Phase Diagram Worksheet Answers

Refer to the phase diagram below when answering the questions on this worksheet



1) If I had a quantity of this substance at a pressure of 1.25 atm and a temperature of 300° C and lowered the pressure to 0.25 atm, what phase transition(s) would occur?

It would vaporize at a pressure of ~0.75 atm. Liquid to gas

2) At what temperature do the gas and liquid phases become indistinguishable from each other? 825° C

3) If I had a quantity of this substance at a pressure of 0.75 atm and a temperature of -100° C, what phase change(s) would occur if I increased the temperature to 600° C? At what temperature(s) would they occur? It would melt at ~100° C, then boil at ~175° C.

4) What is the normal freezing point of this substance? 100° C

5) What is the normal boiling point of this substance? 375° C

6) What is the normal freezing point of this substance? 100° C