

Phase Change Diagram Worksheet

Name \_\_\_\_\_  
Date \_\_\_\_\_ Pd \_\_\_\_\_

1. Calculate the amounts of energy required to take 46.0 g of ice at  $-58^{\circ}\text{C}$  to steam at  $114^{\circ}\text{C}$ .
  - a)  $-58^{\circ}\text{C}$  to  $0^{\circ}\text{C}$
  
  - b) melt the ice
  
  - c)  $0^{\circ}\text{C}$  to  $100^{\circ}\text{C}$
  
  - d) vaporize the water
  
  - e)  $100^{\circ}\text{C}$  to  $114^{\circ}\text{C}$
  
  - f) What is the total energy required for the process above?
  
2. Calculate the heat of fusion of iodine if 1567 Joules is required to melt 25.4 grams of solid iodine?
  
  
  
  
  
  
  
  
  
  
3. The heat of fusion ( $H_f$ ) of palladium is 162 J/g. Calculate the energy required to melt 4.24 grams of it.