Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_

Chem R. Pd \_\_\_\_\_\_\_ **Heat Equations**

1. How many joules of energy are required to vaporize 423 g of water at 100°C and 1 atm?
2. When 20.0 g of a substance are completely melted at its melting point, 3444 J are absorbed. What is the heat of fusion of this substance?
3. How much heat is required to melt 320.0 g of water at its normal melting point?
4. How much heat is lost as 60.0 g of steam condenses at the normal vaporization point?
5. The heat of fusion of lead is 25 J/g and its melting point is 601 K. How much heat is given off as 3.0 g of liquid lead solidifies at 601 K?