

Name: _____ Date: _____ Period: _____

Molar Heat of Fusion and Molar Heat of Vaporization Worksheet

1. Calculate the heat needed to change 3.00×10^2 grams of water at 25.0°C to steam at 100.0°C .
2. Calculate the heat needed to change 75.0 grams of ice at -40.0°C to water at 20.0°C . The amount of heat required is equal to the sum of these three steps.
3. Calculate the heat released when 454 grams of steam at $100.^\circ\text{C}$ condenses and then cools to water at 30.0°C .
4. Calculate the heat needed to change 475 grams of water at 40.0°C to steam at 100.0°C .
5. Calculate the heat needed to change 2.50×10^2 grams of ice at 0.0°C to steam at 100.0°C .
6. How much heat is needed to change 3.00×10^2 grams of ice at -30.0°C to steam at 130.0°C ?
7. How much heat is removed from 60.0 g of steam at 100.0°C to change it to 60.0 g of water at 20.0°C ?