Calorimetry Calculations Practice

**** Please round all answers to 2 decimal places. Every answer should have 2 decimal places****

$Q = mc\Delta T$ or $Q = mH_{fusion}$ or $Q = mH_{vaporization}$

1. A 15.75-g piece of metal absorbs 1086.75 joules of heat energy, and its temperature changes from 25°C to 175°C. Calculate the specific heat capacity of the metal.

2. Calculate the amount of heat needed to melt 35.0 g of ice at 0ºC. Express your answer in Joules.

3. What mass of water will change its temperature by 3˚C when 525 J of heat is added to it? The specific heat of water is 4.18 J/g˚C

4. What mass of aluminum metal would absorb 250.0 kJ when it melted at its melting point? The molar enthalpy of fusion for aluminum is 396.6J/g

5. 1740J of heat are required to raise the temperature of 50g of what metal from 50˚C to 70˚C?

6. Calculate the amount of heat needed to convert 190.0 g of liquid water at 100ºC to steam at 100ºC.

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