

Thermochemistry Calculations Practice

Equation 1: $Q = mc\Delta T$

***Round all answers to the nearest hundredth!

- What does each variable represent and what unit will be used?
 - $Q =$ _____; _____
 - $m =$ _____; _____
 - $c =$ _____; _____
 - $\Delta T =$ _____; _____
- The specific heat of water is _____.
- True or False** The specific heats of various metals can be found in your reference packet.
- 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.
- 1740J of energy can heat 85g of what metal (answer is the element's SYMBOL) from 80°C to 100°C?
- How many joules of heat are needed to raise the temperature of 10.0 g of aluminum from 22°C to 55°C?
- What mass of water will change its temperature by 3°C when 525 J of heat is added to it?
- A 0.3 g piece of copper is heated and fashioned into a bracelet. The amount of energy transferred by heat to the copper is 66,300 J. What is the change of the copper's temperature?
- 388 J of heat are required to raise the temperature of 50g of what metal (answer is the element's SYMBOL) from 50°C to 70°C?