

MSC 1012 Chapter 5 set 3

Specific heat

1. The specific heat of aluminum is $920 \text{ J kg}^{-1} \text{ K}^{-1}$ (Note K^{-1} “per kelvins” is the same as “per celcius degrees” since the scaling is the same). How much heat is required to raise the temperature of 25.0 kg of aluminum from 25°C to 100°C ?

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2. The specific heat of water is $4186 \text{ J kg}^{-1} \text{ K}^{-1}$. Starting at 10°C , what temperature will be reached if one were to heat 2.5 kg of water with 525 kJ of heat?

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