

Chapter 12 rev a

1. Convert the following temperatures: show work!

a) $98^{\circ}\text{F} = \underline{\hspace{2cm}}^{\circ}\text{C}$

b) $100^{\circ}\text{F} = \underline{\hspace{2cm}}^{\circ}\text{C}$

c) $30^{\circ}\text{F} = \underline{\hspace{2cm}}^{\circ}\text{C}$

d) $50^{\circ}\text{C} = \underline{\hspace{2cm}}^{\circ}\text{F}$

e) $21^{\circ}\text{C} = \underline{\hspace{2cm}}^{\circ}\text{F}$

f) $80^{\circ}\text{C} = \underline{\hspace{2cm}}^{\circ}\text{F}$

2. How much TE (thermal energy) does it take to heat up 1.00 kg of water from 0°C to 100°C ?

3. How much TE do you have to get rid of to lower the temperature of 1.0 kg of aluminum from 350°F to 60°F ?
(note what happens to the sign of Δt)

4. What is the specific heat of a substance that it takes 99.5 KJ of TE to raise the temperature of 500. g from 35°F to $200.^{\circ}\text{F}$?