

## Physics “Chpt 12 rev 1”

1. How much heat (Thermal Energy) is absorbed when 45 g of water at  $88^{\circ}\text{C}$  is turned to steam at  $125^{\circ}$ ?
2. What is the “c” of a 92 g metal block at  $100^{\circ}\text{C}$  it is put in 125 g of water at  $15^{\circ}$  in a 75 g aluminum cup and the final temperature is  $21^{\circ}$ ?
3. What is the final temperature of 222 g of water at  $88^{\circ}$  in a 75 g aluminum cup if 55 g of ice are added?... (consider the ice to be at  $0^{\circ}$ )
4. What change in temperature does water experience if it is dropped from 22 m?
5. A 55 g lead bullet traveling at 333 m/s strikes a tree and all of its KE is converted to TE. What is its change in temperature?
6. A 923 kg car traveling at 65 km/hr stops with brake pads having a combined mass of 1.8 kg. What is the “c” of the pads if they change in temperature  $125^{\circ}$  during stopping?
7. What is the power rating of a heat that heats up 45 liters of water in a 12.7 kg glass tank from  $15^{\circ}\text{C}$  to  $22^{\circ}\text{C}$  in 2.6 hours?