

Unit 9 Math of Heat

Read 14.3 (pp. 446-448) and define each of the following:

1.) Heat of Fusion (H_f):

2.) Heat of Vaporization (H_v):

3.) Kinetic Energy:

4.) Freezing:

5.) Melting:

6.) Specific Heat:

Heat Values for water

Heat Value	Joules
H_f (heat of fusion)	334 J/g
H_v (heat of vaporization)	2260. J/g
Specific Heat Values	Joules
C_{ice}	2.06 J/g $^{\circ}C$
C_{liquid}	4.184 J/g $^{\circ}C$
C_{steam}	2.03 J/g $^{\circ}C$

Draw a typical heating/cooling curve, label each phase, and write in the equation used in that section.



- (1) How much heat energy in joules, is required to heat 50.0 g of water from $-25.0^{\circ}C$ to $125.0^{\circ}C$?

- (2) How much heat energy in joules, would be released when 50.0 g of water cools from $125.0^{\circ}C$ to $-25.0^{\circ}C$?