

College Prep Chemistry of the Earth System

Assignment 2F

20 Points

Unit 2 Math Review

1. Convert the following absolute temp problems ($K \rightarrow ^\circ C$, and $^\circ C$ to K)
 - a. $492.5K$, convert to $^\circ C$
 - b. $-29.4^\circ C$, convert to K
2. Convert between the following heat unit
 - a. $582.5cal$, convert to J
 - b. $3928.4J$, convert to cal
 - c. $492.4kJ$, convert to $kcal$
 - d. $8.28kcal$, convert to kJ
3. Solve the following specific heat problems
 - a. $c_{water} = 4.186J/g^\circ C$, $m = 3.62g$,
 $\Delta T = 15.2^\circ C$, $q = \underline{\hspace{2cm}} J$
 - b. $q = 934.5J$, $m = 42.5g$
 $\Delta T = 29.2^\circ C$, $c = \underline{\hspace{2cm}} J/g^\circ C$
 - c. $q = 1943.5J$, $c = 0.482J/g^\circ C$
 $\Delta T = 35.2^\circ C$, $m = \underline{\hspace{2cm}} g$
 - d. $q = 913.5J$, $c = 0.834J/g^\circ C$
 $m = 29.4g$, $\Delta T = \underline{\hspace{2cm}} ^\circ C$