

College Prep Chemistry of the Earth System

Assignment 2J

20 Points

Specific Heat Review

Solve the following specific heat problems. The paper is a review of problems on the Unit 2 Test.

1. $q = \underline{\hspace{1cm}}$ J, $m = 34.5\text{g}$
 $\Delta T = -14.5^\circ\text{C}$, $c = 0.350\text{J/g}^\circ\text{C}$

2. a. $T_{\text{ini}} = 91.3^\circ\text{C}$, $T_{\text{final}} = 84.3^\circ\text{C}$,
 $\Delta T = \underline{\hspace{1cm}}^\circ\text{C}$
b. $c = 0.650\text{J/g}^\circ\text{C}$, $m = 14.3\text{g}$, $q = \underline{\hspace{1cm}}$ J

3. $\Delta T = 29.4^\circ\text{C}$, $q = -492.2\text{J}$,
 $c = 0.900\text{J/g}^\circ\text{C}$, $m = \underline{\hspace{1cm}}\text{g}$

4. a. $m = 4.39\text{g}$, $q = -392.4\text{J}$,
 $c = 0.190\text{J/g}^\circ\text{C}$, $\Delta T = \underline{\hspace{1cm}}^\circ\text{C}$
b. $T_{\text{ini}} = 2.49^\circ\text{C}$, $T_{\text{final}} = \underline{\hspace{1cm}}^\circ\text{C}$