$\qquad$ Period

## Chemistry: Heat

1. 150.0 g of ice $@-25.0^{\circ} \mathrm{C}$ is dropped into water @ $25.0^{\circ} \mathrm{C}$. The equilibrium temperature is $10.0^{\circ} \mathrm{C}$. What is the volume of water?
2. 100.0 grams of iron at $555.0^{\circ} \mathrm{C}$ is dropped into 100.0 ml of water. The equilibrium temperature of the mixture is $75.0^{\circ} \mathrm{C}$. What was the initial temperature of the water? $\left(\mathrm{C}_{\mathrm{Fe}}=.1255 \mathrm{cal} / \mathrm{g}^{\circ} \mathrm{C}\right)$
3. 5.555 kg of steam at $1355^{\circ} \mathrm{F}$ is cooled to ice at $-350.55^{\circ} \mathrm{C}$. How much energy was lost?
4. What is the mass of an ice cube that started at $-10.0^{\circ} \mathrm{C}$ that was dropped into 100.0 ml of water that starts at $10.0^{\circ} \mathrm{C}$ if the equilibrium temperature of the mixture is $4.00^{\circ} \mathrm{C}$ ?
