

NAME: _____

Quiz 22

The specific heat of aluminum (as used in a soda can) is $c_{\text{Al}} = 0.215 \text{ cal g}^{-1} \text{ }^\circ\text{C}^{-1}$.
The specific heat of water is $c_{\text{H}_2\text{O}} = 1.000 \text{ cal g}^{-1} \text{ }^\circ\text{C}^{-1}$.

1. If an aluminum can has a mass of 16.5 g and its temperature is raised by 20°C , how much heat will the can have absorbed?
2. If an aluminum can has 200 g of water and its temperature is raised by 20°C , how much heat will the water have absorbed?
3. How does the heat absorbed by the aluminum of the can compare to the heat absorbed by the water in the can?