

4. We know the specific heat of water is $c_w = 1 \text{ cal / (gm } ^\circ\text{C)}$. We also know the mass of water and the temperature change, so the calculation is straightforward.

$$Q = c_w m \Delta T$$

$$Q = (1 \text{ cal / gm}^\circ\text{C}) (60 \text{ gm}) (85^\circ\text{C} - 25^\circ\text{C})$$

$$Q = (60) (60) \text{ cal} = 3600 \text{ cal}$$