

**Question #63960, Chemistry / General Chemistry**

Assuming that Coca-Cola has the same specific heat as water [4.18 J/(g·°C)], calculate the amount of heat in kilojoules transferred when one can (about 350 g) is cooled from 28 °C to 9 °C.

**Solution:**

$$Q = c \times m \times (T_2 - T_1)$$
$$Q = 4.18 \frac{\text{J}}{\text{g} \times ^\circ\text{C}} \times 350.00 \text{ g} \times (28 ^\circ\text{C} - 9 ^\circ\text{C}) = 27797 \text{ J} = \mathbf{27.8 \text{ kJ}}$$

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