1. Componentes:

- Plomo: $m = 200\,\text{g}$, $T = 328°\text{C}$, $T_{eq} = 30°\text{C}$
- Agua: $m = ?$, $T = 10°\text{C}$, $T_{eq} = 30°\text{C}$

a. $Q_{\textbf{plomo}} + Q_{\textbf{agua}} = 0$

a.1. $Q_1 = m \cdot L_f$

$$Q_1 = 200\,\text{g} \cdot 5.35\,\frac{\text{cal}}{\text{g} \cdot \text{C}}$$
$$Q_1 = 1070\,\text{cal}$$

a.2. $Q_2 = m \cdot c_e \cdot \Delta T$

$$Q_2 = 200\,\text{g} \cdot 0.034\,\frac{\text{cal}}{\text{g} \cdot \text{C}} \cdot (30°\text{C} - 328°\text{C})$$
$$Q_2 = -1847.6\,\text{cal}$$

a.3. $Q_{\textbf{plomo}} = Q_1 + Q_2$

$$Q_{\text{plomo}} = 1070\,\text{cal} + (-1847.6\,\text{cal})$$
$$Q_{\text{plomo}} = -777.6\,\text{cal}$$

b. $\Delta u = Q - W$

b.1. $W = Q_{\textbf{generado}} - Q_{\textbf{codido}}$

$$W = 4070\,\text{cal} - (-1847.6\,\text{cal})$$
$$W = 2947.6\,\text{cal}$$

b.2. $\Delta u = -777.6 - 2947.6$

$$\Delta u = -3725.2\,\text{cal}$$