

$$m = 3 \text{ kg}$$

$$t_{01} = -10^\circ\text{C}$$

$$t = 20^\circ\text{C}$$

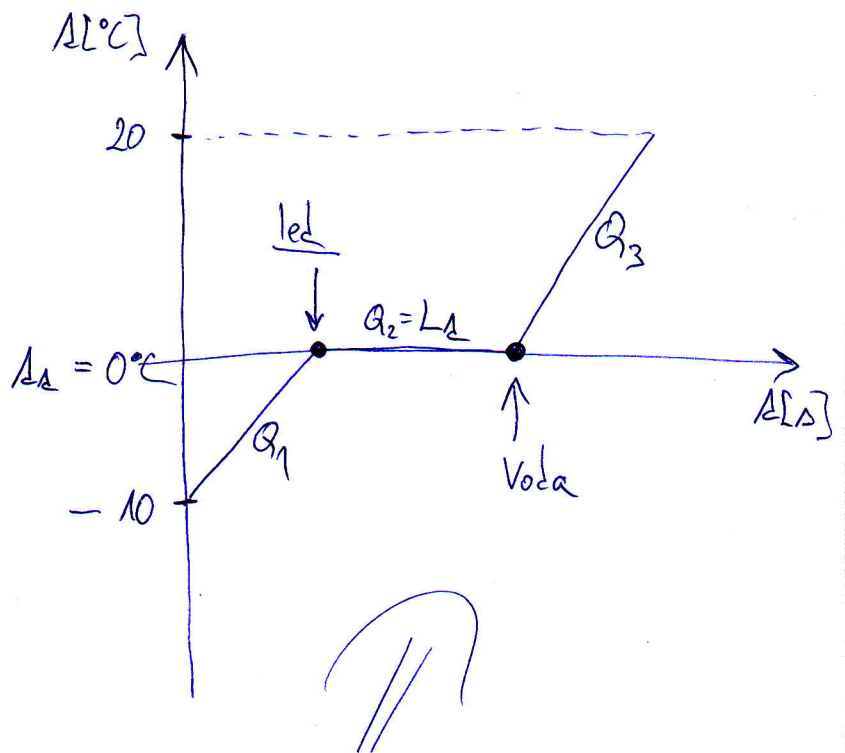
$$Q = ? \text{ [J]}$$

$$c_{\text{ledu}} = 2100 \frac{\text{J}}{\text{kg}\cdot^\circ\text{C}}$$

$$c_{\text{vody}} = 4200 \frac{\text{J}}{\text{kg}\cdot^\circ\text{C}}$$

$$l_A = 334000 \frac{\text{J}}{\text{kg}}$$

krivka tání



$$Q = Q_1 + Q_2 + Q_3$$

$$Q = 63000 + 1002000 + 252000$$

$$Q = 1317000 \text{ J}$$

$$Q = 1,32 \text{ MJ}$$

$$Q_1 = m \cdot c_{\text{ledu}} \cdot (t - t_{01})$$

$$Q_1 = 3 \cdot 2100 \cdot (0 - (-10))$$

$$Q_1 = 3 \cdot 2100 \cdot 10$$

$$Q_1 = 63000 \text{ J}$$

$$Q_2 = L_A = m \cdot l_A$$

$$L_A = 3 \cdot 334000$$

$$L_A = 1002000 \text{ J}$$

$$Q_3 = m \cdot c_{\text{vody}} \cdot (t - t_A)$$

$$Q_3 = 3 \cdot 4200 \cdot (20 - 0)$$

$$Q_3 = 3 \cdot 4200 \cdot 20$$

$$Q_3 = 252000 \text{ J}$$

Led a voda přijme od svého okolí celkem 1,32 MJ tepla.