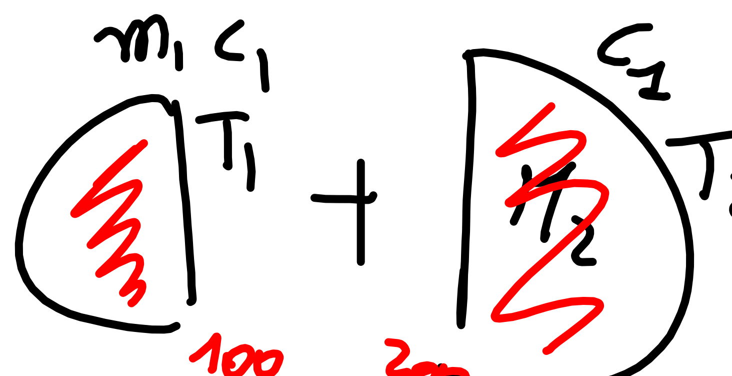


$= E_{finale}$

$C = 1 \quad H_2O = 4{,}186$

$C_{....} < 1$

$H_2O + H_2O$

$Fe + Fe$

$m_1 c_1 T_1 + m_2 c_1 T_2 = (m_1 + m_2) c_1 T_e$

$$T_e = \frac{m_1 T_1 + m_2 T_2}{m_1 + m_2} = \frac{(70 \cdot 20 + 40 \cdot 80)}{(70 + 40)} = 41{,}8\ °C$$

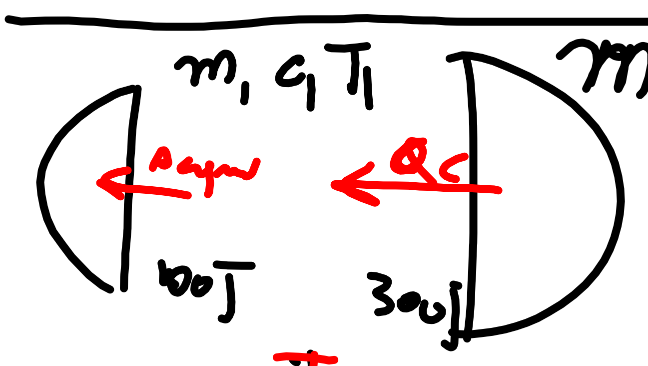
ESERCIZIO

$m_1 = 70\ kg$ H_2O $20\ °C$

$m_2 = 40\ kg$ H_2O $80\ °C$

$T_{eq} = ?$

$T_1 < T_e < T_2$



$c_1 \neq c_2$

$\longrightarrow E_f = 400$

T_e

$m_1 c_1 (T_e - T_1) = m_2 c_2 (T_2 - T_e)$ $T_{e}?$

$m_1 c_1 T_e - m_1 c_1 T_1 = m_2 c_2 T_2 - m_2 c_2 T_e$

$m_1 c_1 T_e + m_2 c_2 T_e = m_1 c_1 T_1 + m_2 c_2 T_2$

$E_f \qquad E_1 + E_2$

$T_e (m_1 c_1 + m_2 c_2) = $

$$T_e = \frac{m_1 c_1 T_1 + m_2 c_2 T_2}{m_1 c_1 + m_2 c_2}$$

se $c_1 = c_2$ $\left(\frac{m_1 T_1 + m_2 T_2}{m_1 + m_2}\right)$

Es svolto

$m = 70\ kg$ H_2O a $20°$ + m_2 40k a $80°C \rightarrow 41{,}8$

– Es nuovo –

$m_1 = 70\ kg$ H_2O a $20°$ + m_2 40kg Fe a $80°C \longrightarrow T_e$

$c = 4186\ J/kgK$ $\qquad c_2 = 480\ J/kgK$

$$t_e = \frac{(70 \cdot 4186 \cdot 20 + 40 \cdot 480 \cdot 80)}{(70 \cdot 4186 + 40 \cdot 480)} = 23{,}69\ °C \quad V$$

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$C = \frac{\Delta E}{\Delta T} = m c \qquad m\ c$

$c =$

20 T_1 $\qquad$ 21 35 4230

40 T_2

$m \rightarrow$ BIL

$F \rightarrow$ din

$V \rightarrow$ Tazza

$C = ?$ Calorimetro Delle Mescolanze

$C = 1\ cal/g°C = 4{,}186\ J/g°C$

$C_{Fe} = 0{,}11\ cal/g = 0{,}48\ J/gC$

$C_{Zn} \ldots$

$C_{Al} \ldots$

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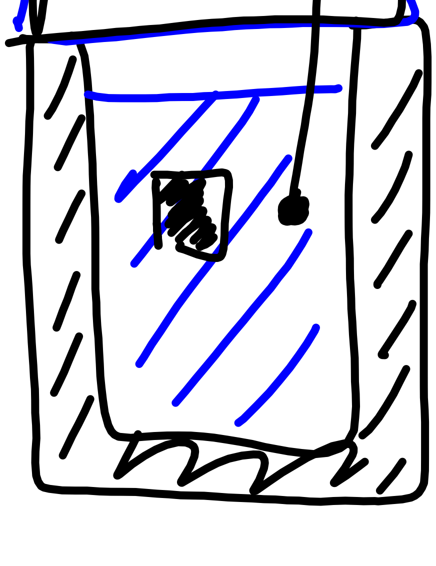
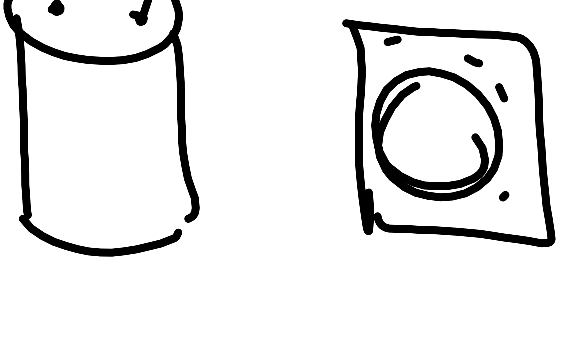


$m_{H_2O}\ c_1\ T_1$

$m_2\ c_x\ T_2$

TERM

1 cal/kg °C



CIAO