



Física 2

TP 1 **Calorimetria**

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1 Parte 1

1)Calcular π :

1. $m_1 = 100\text{g}$
2. $m_2 = 75\text{g}$
3. $m_T = 175\text{g}$
4. $T_i = 21^\circ\text{C}$
5. $T_F = 45^\circ\text{C}$

$$C_{eh2o} = 4190 \frac{J}{Kg.K} = 1 \frac{cal}{g.C} \quad (1)$$

$$m_2 = m_t - m_i \quad (2)$$

$$\pi = \frac{-m_2.(T_f - 86^\circ\text{C})}{T_f - t_i} - m_1 = 28,125\text{g} \quad (3)$$

$T^\circ\text{C}$	$t_i^\circ\text{C}$	$t_f^\circ\text{C}$	$M_{ag}(\text{g})$	$M_{ag}(\text{g})$	$\pi(\text{g})$
45°C	21°C	86°C	100g	75g	28,125g

Table 1: 1

2 Parte 2

Determinar el calor específico de la muestra

Cuerpos:

1. $T_{ci} = 97C$

2. $m_c = 218g$

Calorímetro:

1. $T_{ai} = 20C$

2. $m_c = 141g$

$$T_f = 29C$$

$$C_c = \frac{-(m_i + \pi) \cdot C_c \cdot (T_f - T_i)}{m_c \cdot (T_f - T_{ci})} = 0,1026 \frac{cal}{g \cdot C} \quad (4)$$

Este calor específico coincide con el de Latón.

$C_a g$	$M_a g(g)$	$\pi(g)$	$t_i ^\circ C$	$M_c(g)$	$t_i ^\circ C$	$t_i ^\circ C$	$C_c \frac{cal}{g \cdot C}$
1	141g	28,125g	20°C	218g	97°C	29°C	0,1026

Table 2: 2