

## Clase 42 27 octubre 2021

Título de la nota

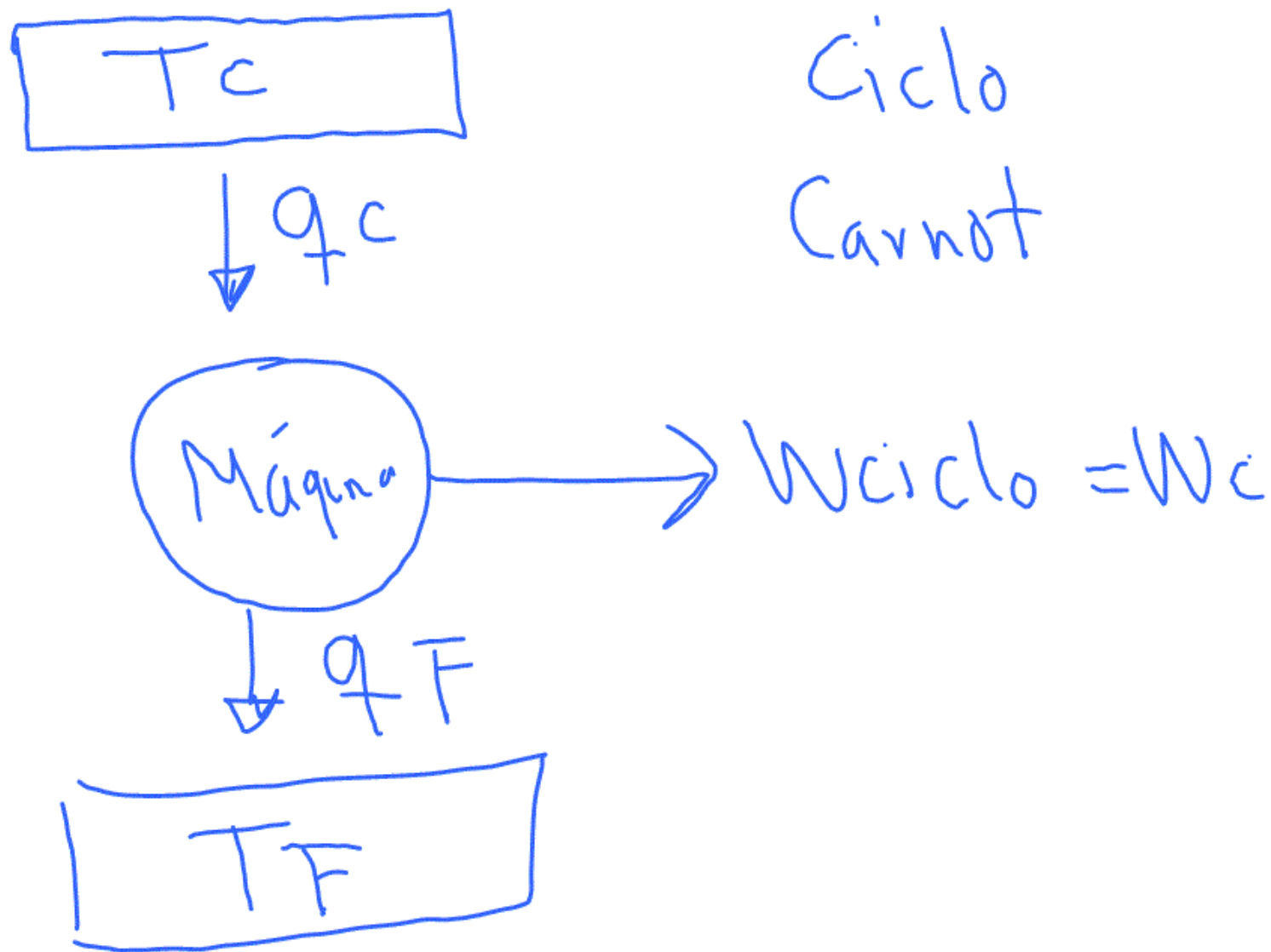
27/10/2021

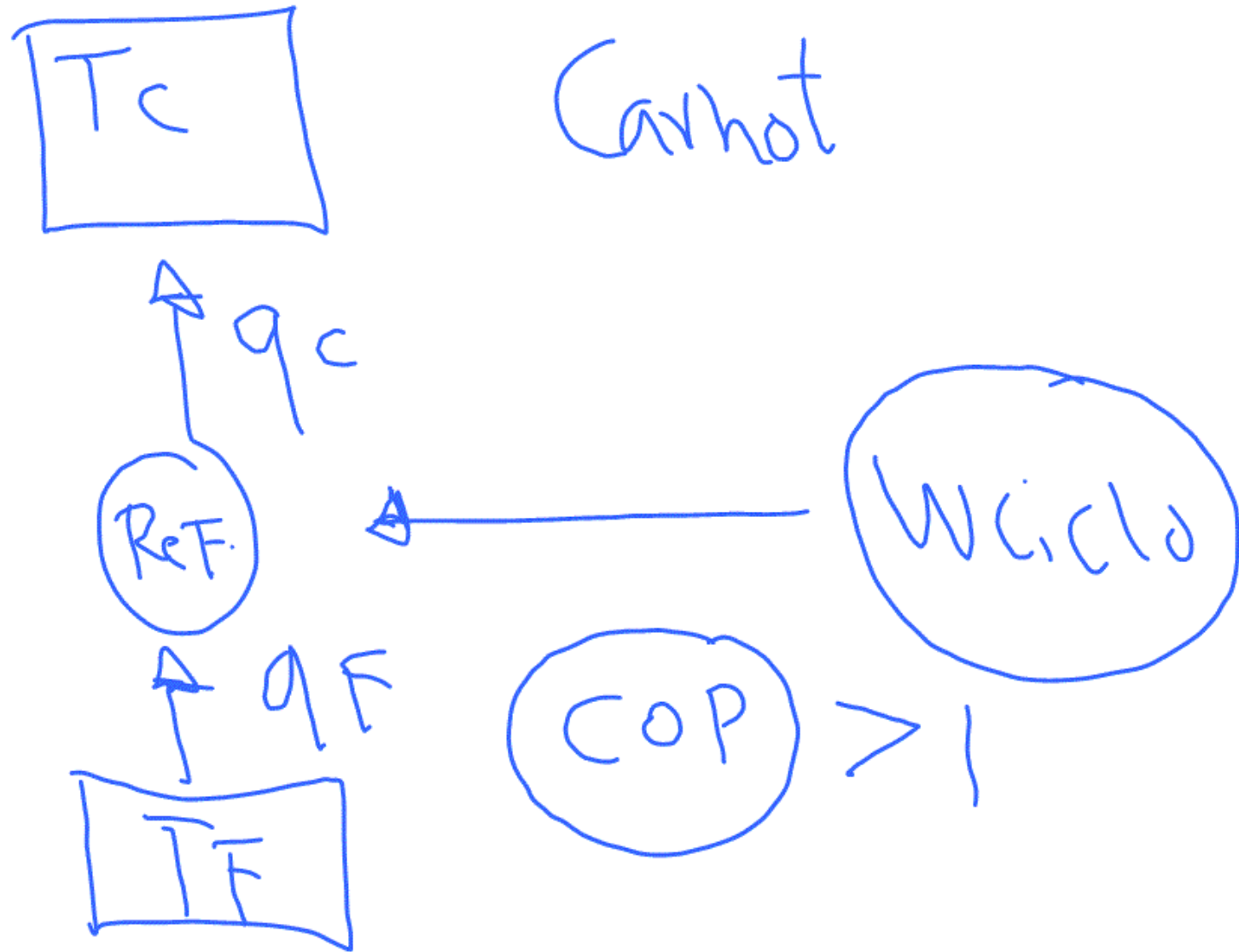
$$\begin{aligned} \text{Eficiencia} \\ \text{Térmica } \% \quad \eta &= \frac{T_c - T_f}{T_c} \times 100 \\ &= \frac{400\text{K} - 200\text{K}}{400\text{K}} \times 100 \\ &\Rightarrow 50\% \end{aligned}$$

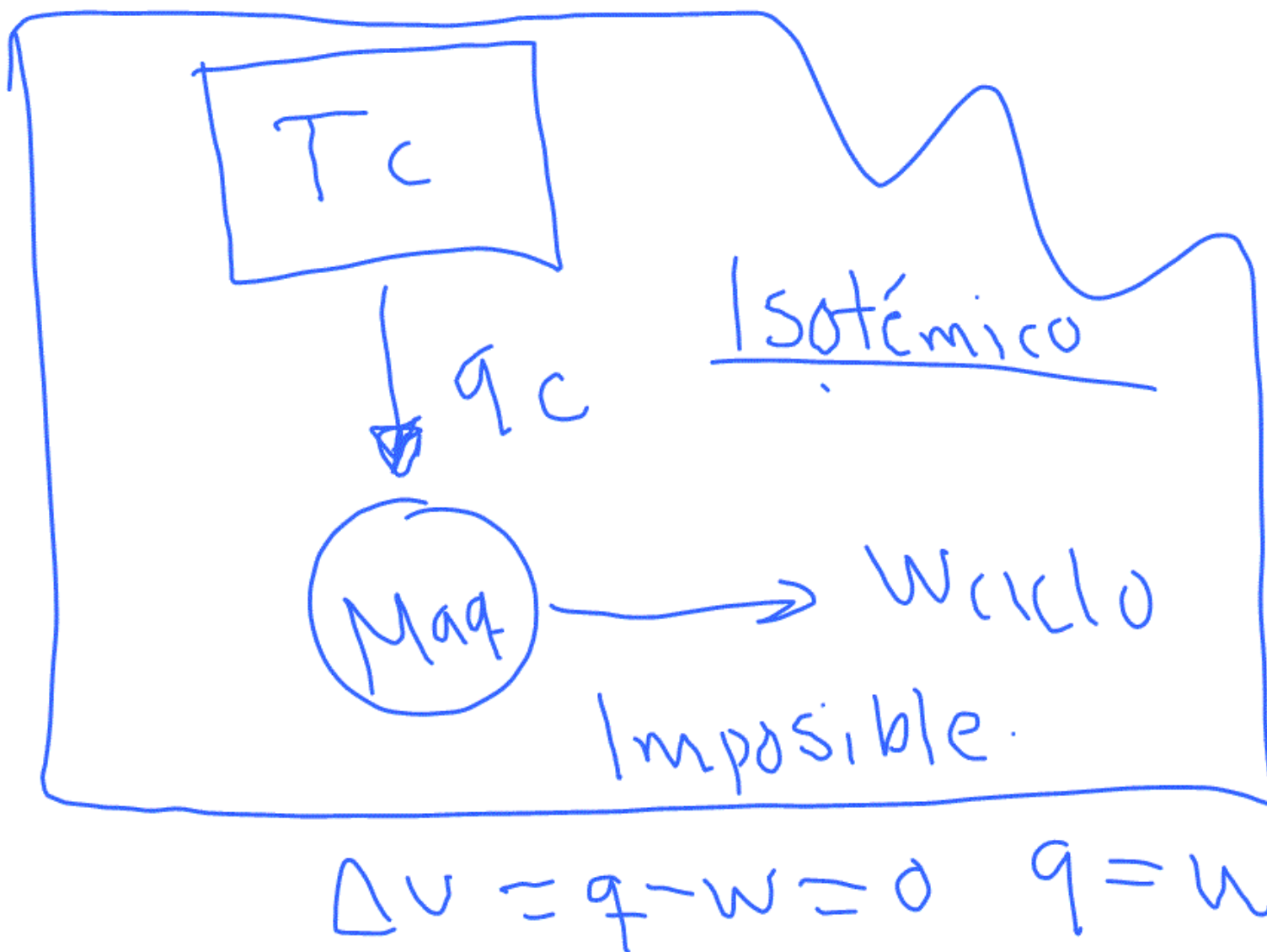
$$\eta = \frac{W_{\text{ciclo}}}{Q_{\text{endo}} + F_{\text{te}} + \text{caliente}} \times 100$$

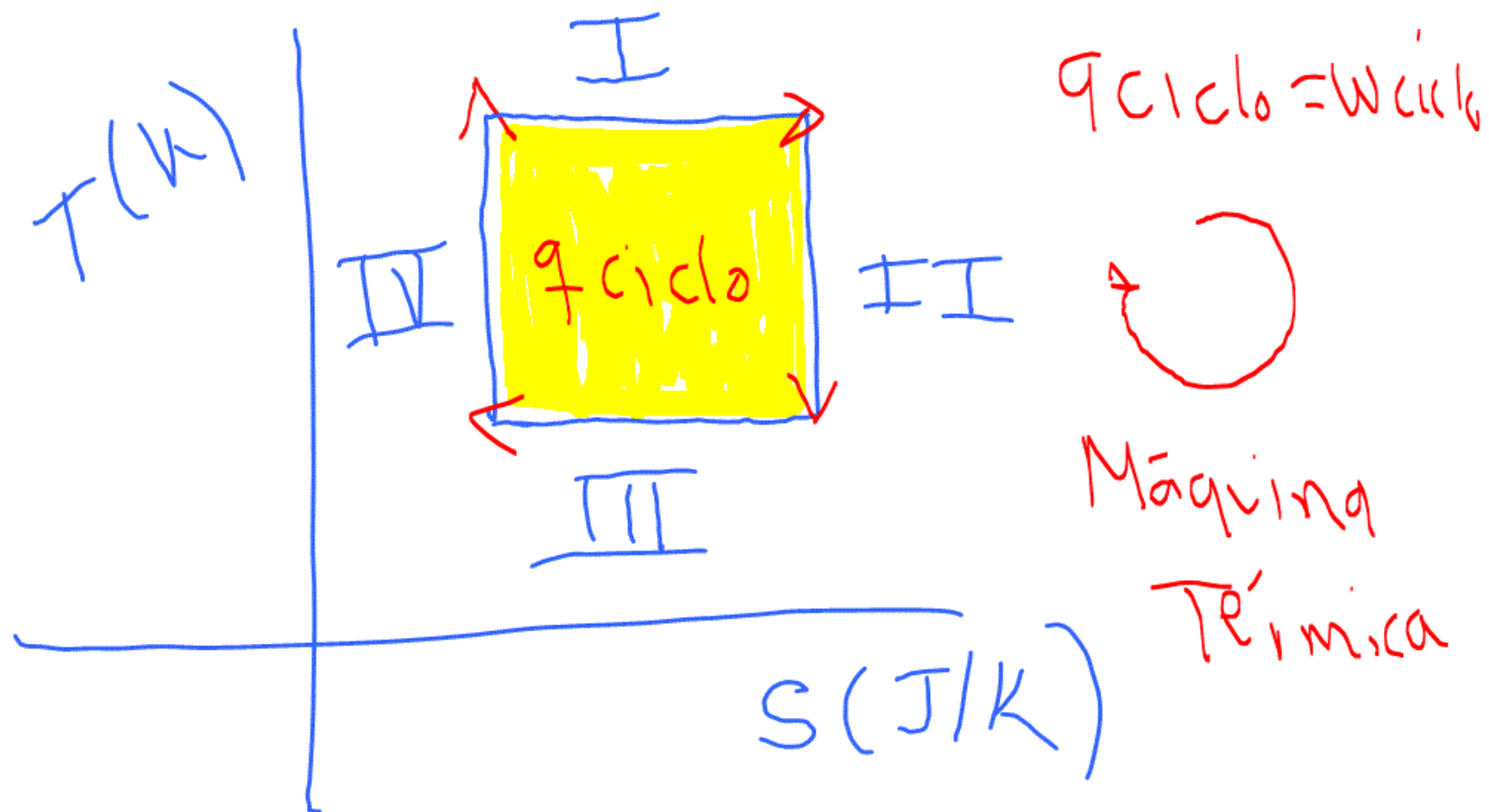
eficiencia  
térmica

$$\eta < 1$$









$$\textcircled{\text{I}} \quad q = w$$

$$w = nRT_c \ln \frac{v_2}{v_1} \quad +$$

$$\text{III} \quad q = w$$

$$w = nRT_F \ln \frac{v_4}{v_3} \quad \Rightarrow \quad -$$

$$W_c = 5736.5799 \text{ J}$$

$$q_c = q_{\text{endo}} = 11472.9920$$

$$\eta = \frac{W_c}{q_c} = \frac{5736.5799 \text{ J}}{11472.9920 \text{ J}} = 0.5$$



$$\text{I } \Delta S = \frac{q}{T_c} = \frac{11475.9920 \text{ J}}{600 \text{ K}} \\ = 19.12 \text{ J/K}$$

$$\text{III } \Delta S = \frac{q}{T_F} = \frac{-5739.4121 \text{ J}}{300 \text{ K}} \\ = -19.12 \text{ J/K}$$