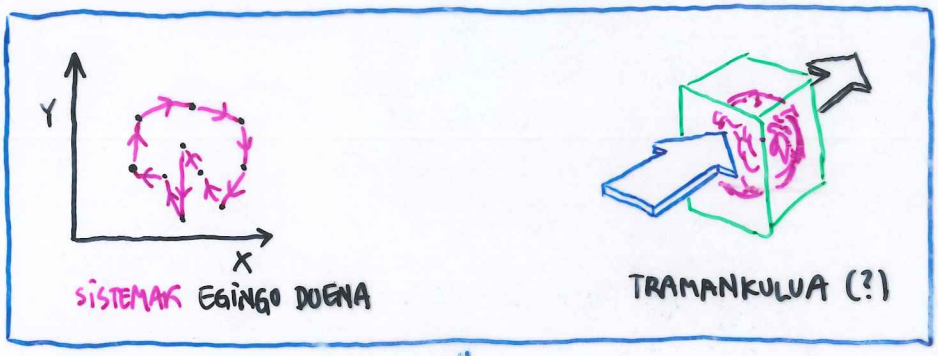
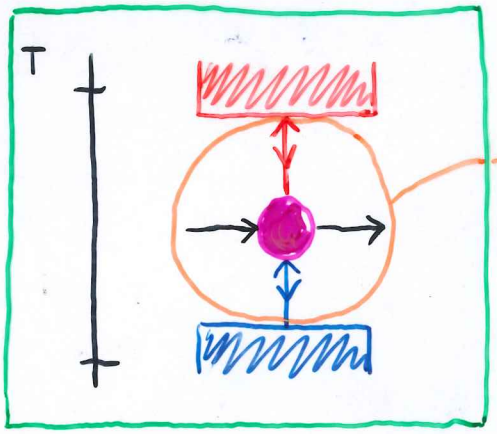
ZIKLOAK ETA MAKINA TERMIKOAK



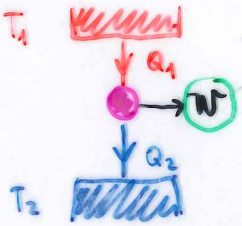


LEHENENGO PRINTZIPIOA

$Q = \Delta U - W$ $\quad \Delta U = 0$

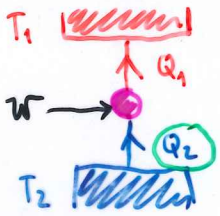
$Q = -W$

MOTORE TERMIKOA



$$\eta = \frac{|W|}{|Q_1|} = \frac{|Q_1| - |Q_2|}{|Q_1|} = 1 - \frac{|Q_2|}{|Q_1|}$$

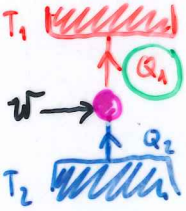
HOZKAILUA



$$|Q_1| - |Q_2| = |W|$$

$$\varepsilon_h = \frac{|Q_2|}{|W|} = \frac{|Q_2|}{|Q_1| - |Q_2|} = \frac{1}{\frac{|Q_1|}{|Q_2|} - 1}$$

BERO-PUNPA



$$\varepsilon_p = \frac{|Q_1|}{|W|} = \frac{|Q_1|}{|Q_1| - |Q_2|} = \frac{1}{1 - \frac{|Q_2|}{|Q_1|}}$$

Adierazpena zatiduraz

$$\varepsilon_p = \frac{|Q_1|}{|W|} = \frac{|Q_1|}{|Q_1| - |Q_2|}$$