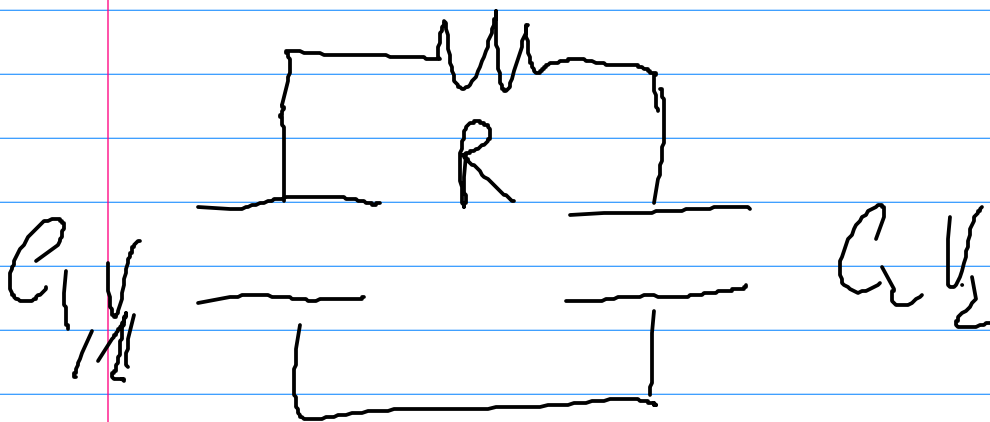
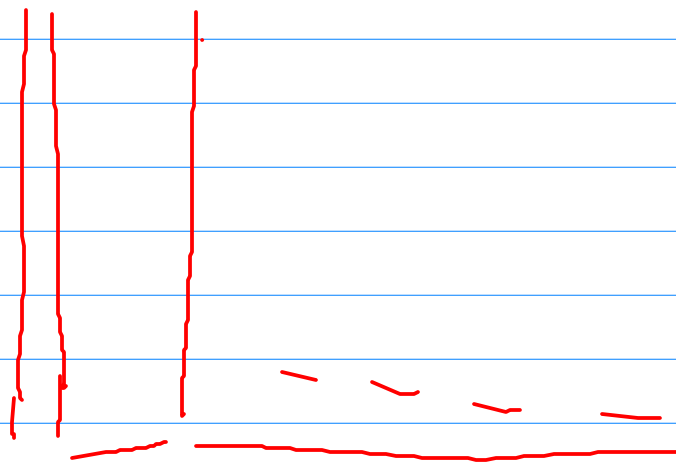


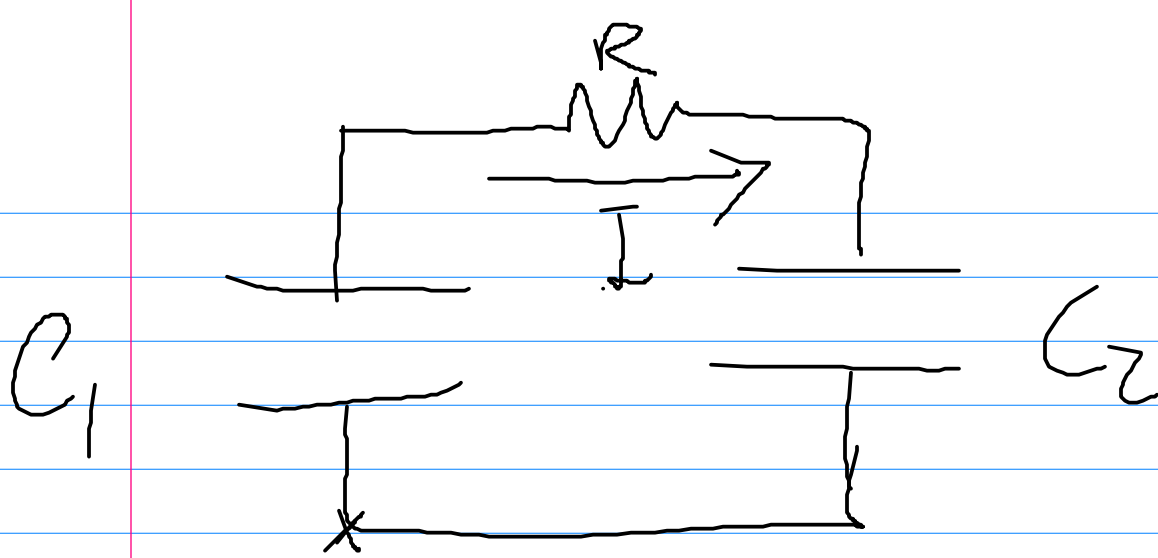
$$\Delta E = \frac{1}{2} \frac{C_1 \cdot C_2}{C_1 + C_2} (V_{C_1} - V_{C_2})^2$$

$$= \frac{1}{2} \rho g \frac{S_1 \cdot S_2}{S_1 + S_2} (h_1 - h_2)^2$$

$$C_2, S_2 \rightarrow \infty$$

$$V_{C_2} \rightarrow 0 \quad h_2 \rightarrow 0$$





$$V_{C_1} - RI - V_{C_2} = 0$$

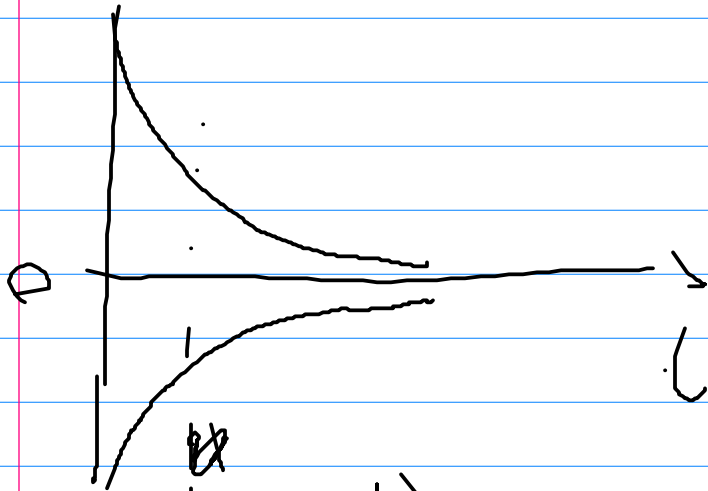
$$I = C_2 \frac{dV_{C_2}}{dt}$$

$$Q_1 + Q_2 = Q_t$$

$$Q_1^{(t)} = Q_t - Q_2^{(t)} = Q_t - C_2 V_{C_2}(t)$$

$$\Rightarrow V_{C_2}(t) \rightarrow I(t) \rightarrow P(t)$$

$$E_J = \int_0^{\infty} P(t) dt$$



$$\frac{dx}{dt}$$

$$V_C \uparrow \quad \frac{d^2x}{dt^2} = (-kx - \beta v) / m$$

