

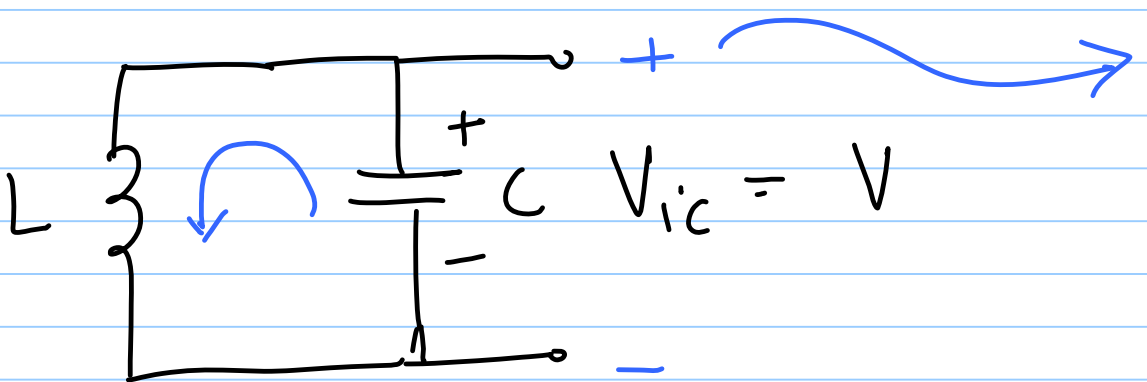
Oscillators

"Autonomous"

LC - oscillator

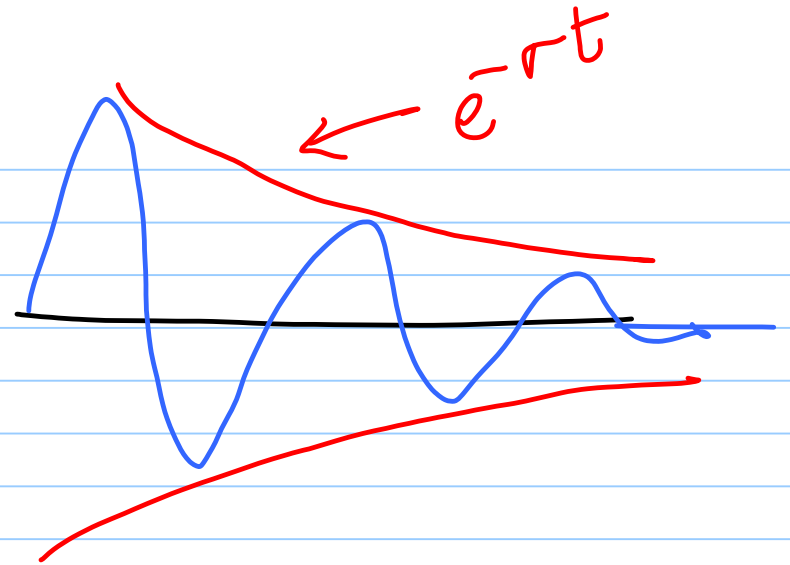
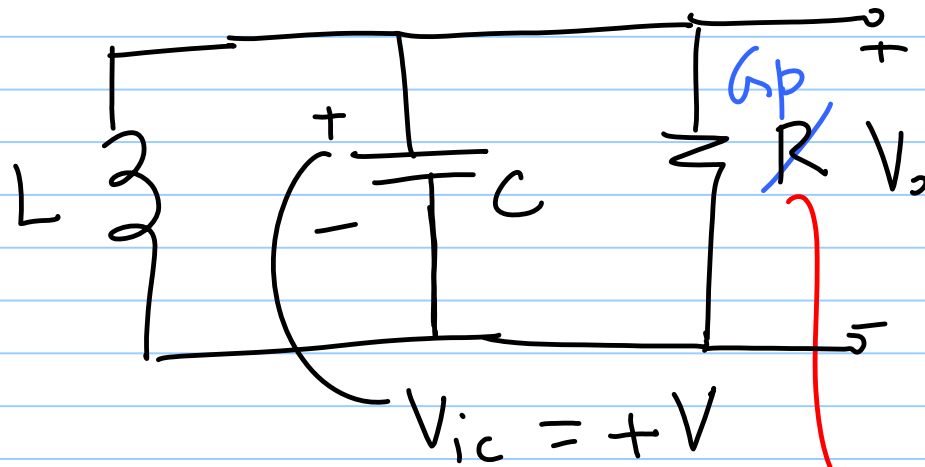


$$V_{out} = V \cos \omega t$$

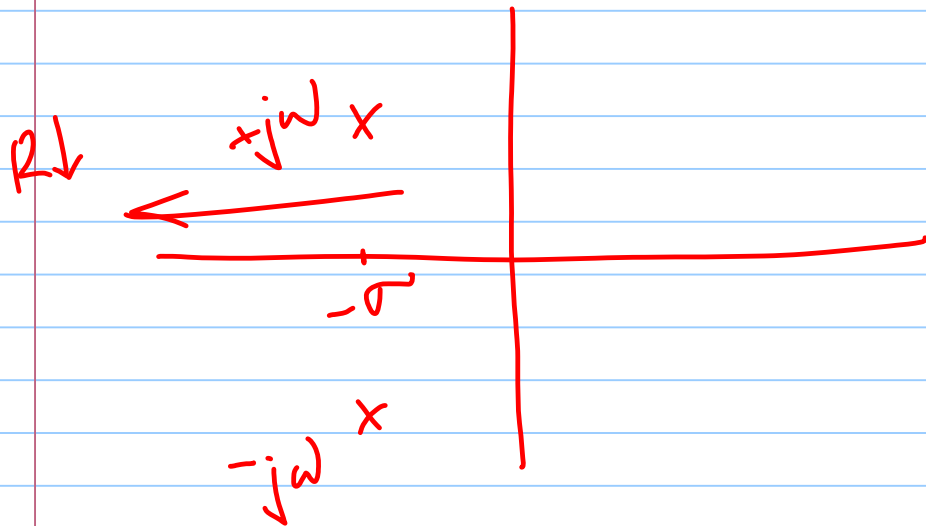


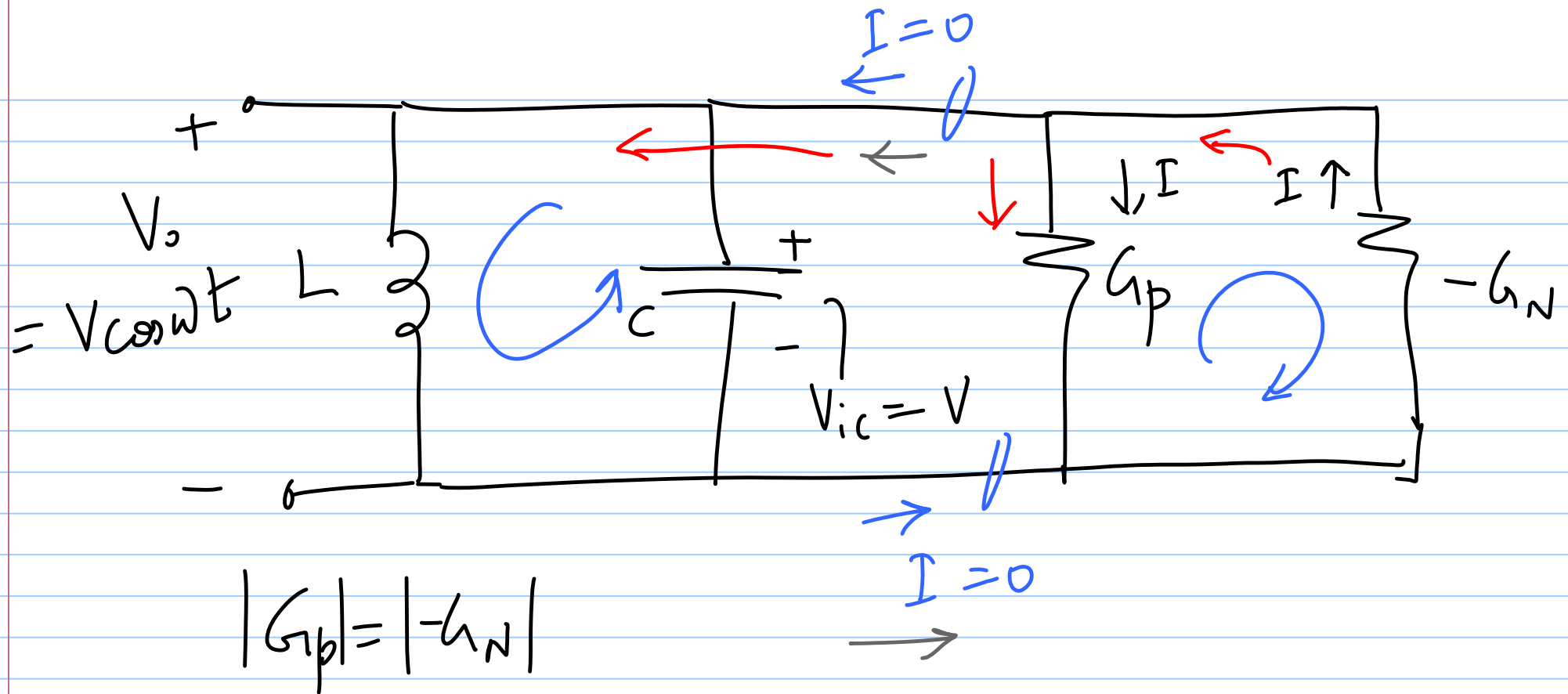
$$V \cos \omega t$$

$$\omega = \frac{1}{\sqrt{LC}}$$

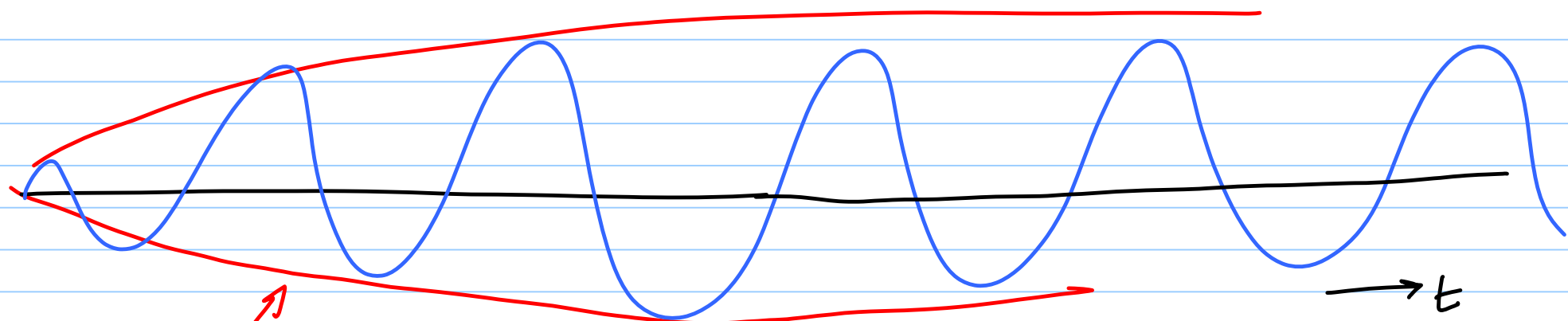


looks in a practical system





HW: I_f initial current through $L = I_i$,
 determine amplitude of oscillations



exponential envelope

$\sigma = \text{positive}$ (RHP poles)

$$|-g_N| > |g_p|$$

Need a nonlinear $(-g_N)$ block