

e-51-5-006

מכונה (LC) RLC רגולר

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

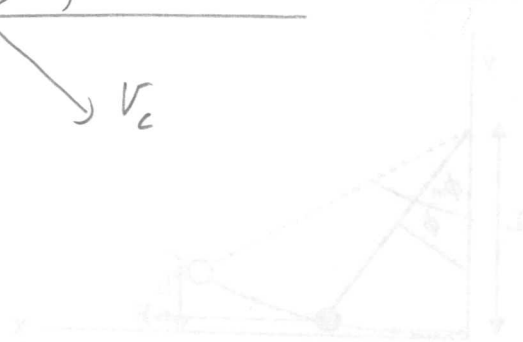
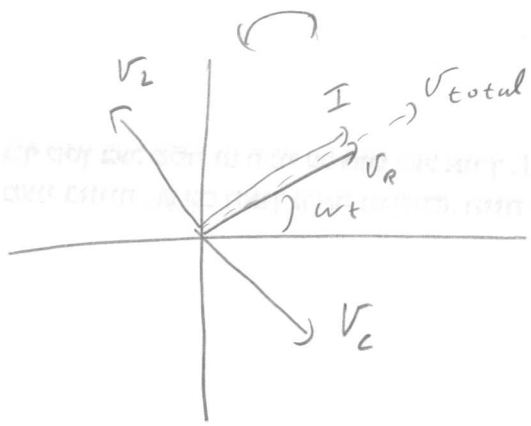
$$I_0 = \frac{V_0}{Z} = \frac{V_0}{\sqrt{R^2 + \left(L\omega - \frac{1}{C\omega}\right)^2}}$$

$$I_0 = \frac{V_0}{R}$$

$$I_{eff} = \frac{V_{eff}}{R}$$

$$V_0^{eff} = I_{eff} X_C = \frac{V_{eff}}{R} \cdot \frac{1}{\omega C} \Big|_{\omega = 1/\sqrt{LC}} = \frac{V_{eff}}{R} \cdot \sqrt{\frac{L}{C}}$$

$$V_L^{eff} = I_{eff} X_L = \frac{V_{eff}}{R} \cdot \omega L \Big|_{\omega = 1/\sqrt{LC}} = \frac{V_{eff}}{R} \cdot \sqrt{\frac{L}{C}}$$



$$V_2 - V_C = I (X_C - X_C) = 0$$

ans 2nd

ans 1st

ans 2nd