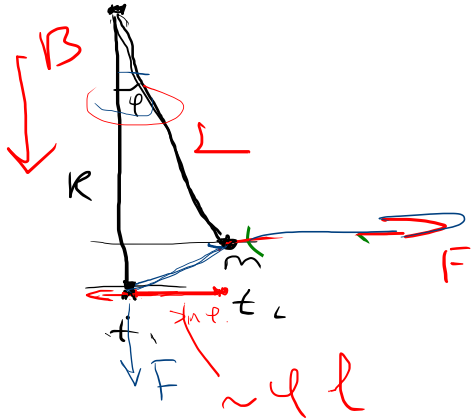
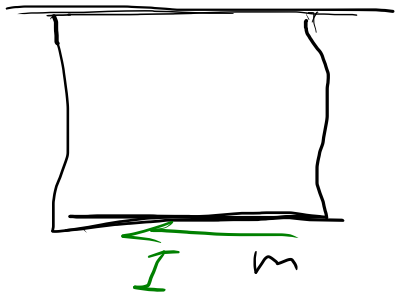




$$\omega = \frac{d\varphi}{dt} \rightarrow$$

$$a \rightarrow v(t_1)$$

$$S = \varphi \ell$$

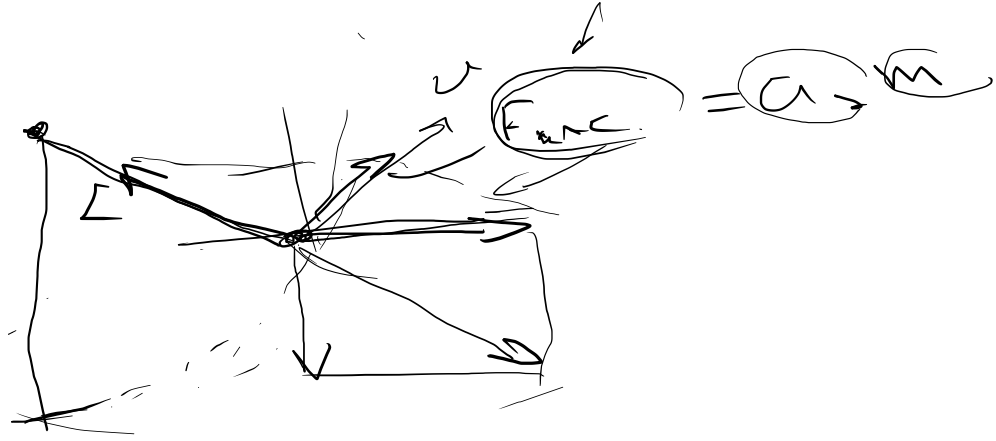
$$F = BIl$$

$$a = \frac{F}{m}$$

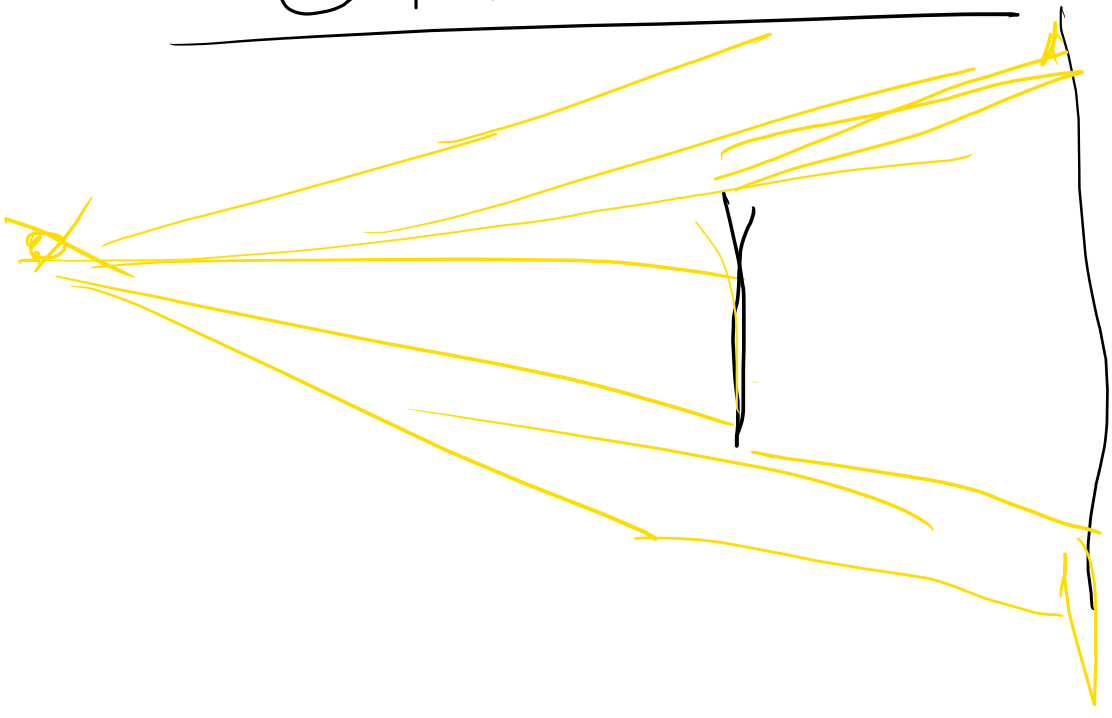
$v = at + \cancel{v_0}$

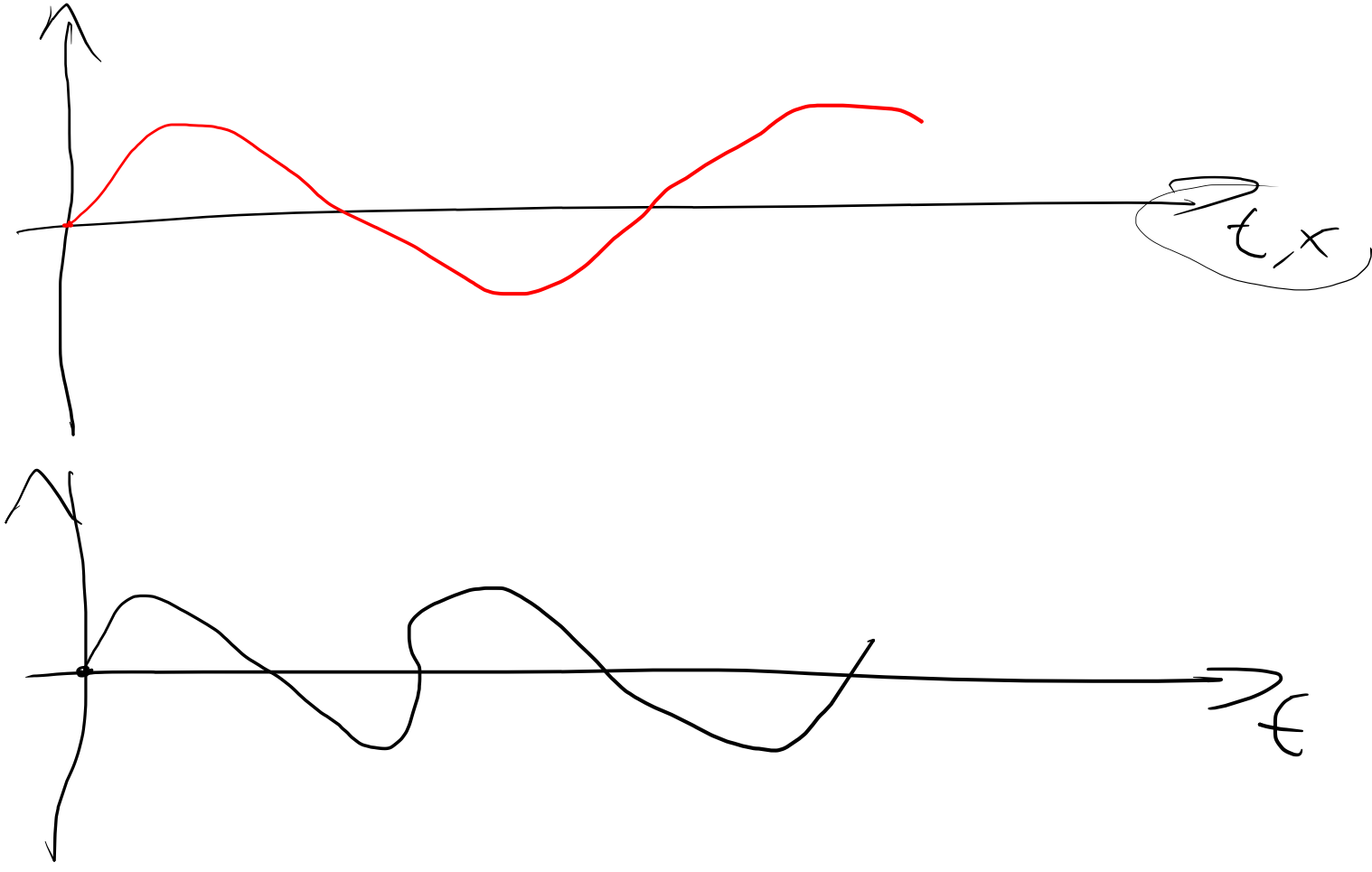
$$v = \frac{F}{m} t = \frac{BIl}{m} \cdot t = \frac{0{,}1 \cdot 10 \cdot 0{,}1}{10^{-2}} \cdot 0{,}1 =$$

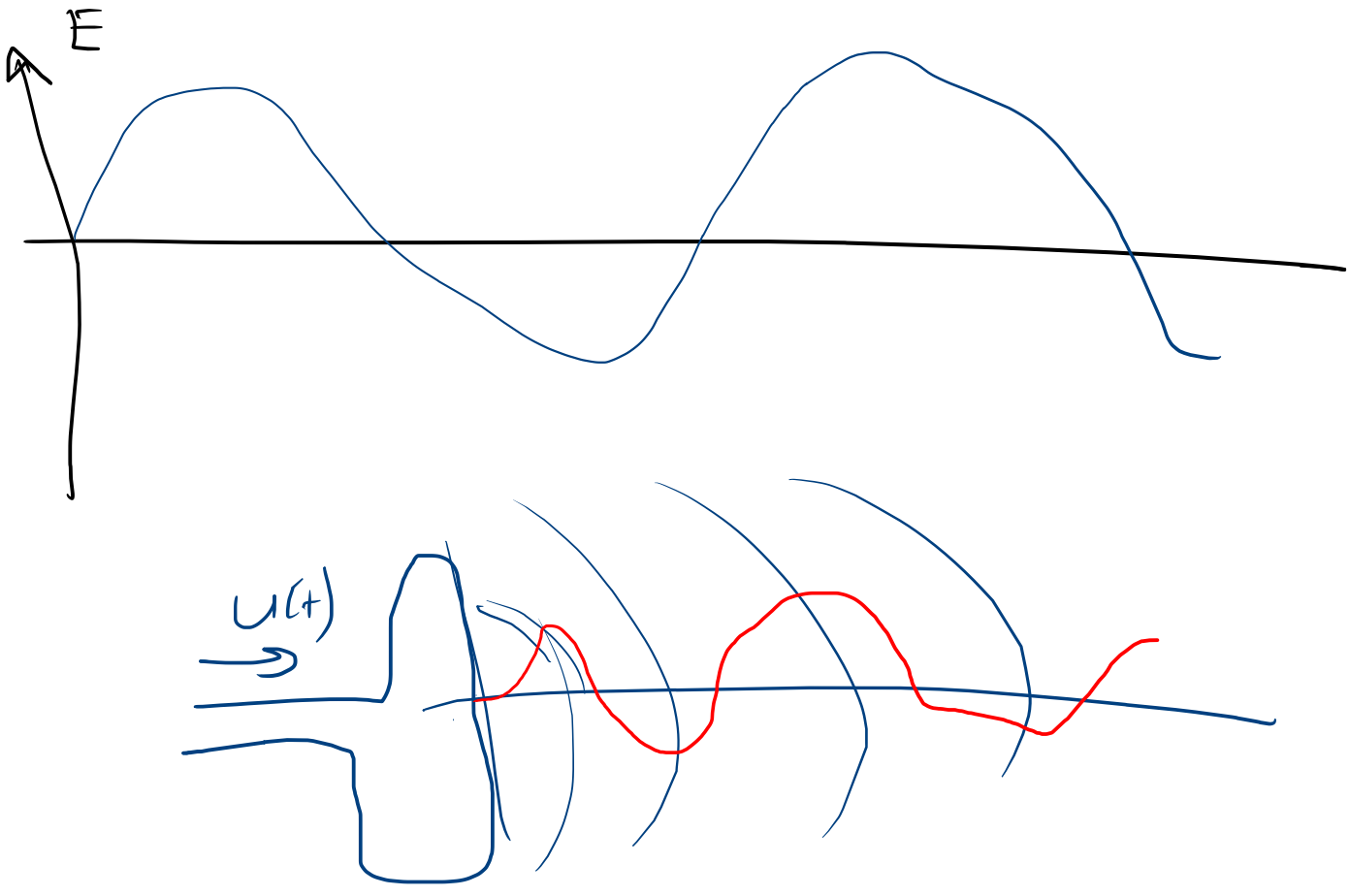
$= 1 \text{ m/s}$

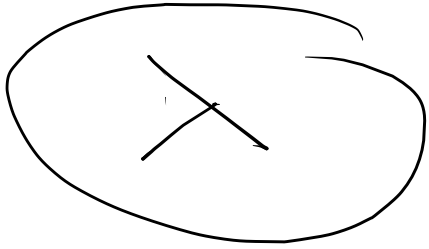


ОПТИКА

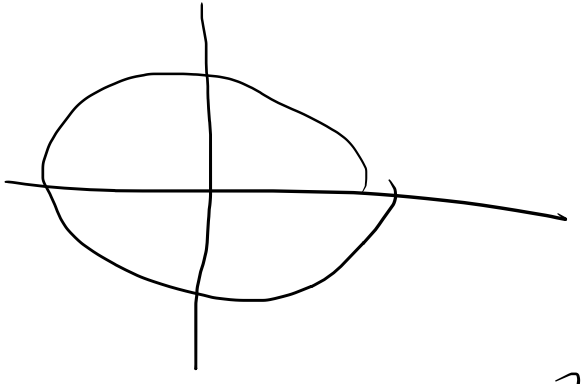



t, x
t


E
U(t)



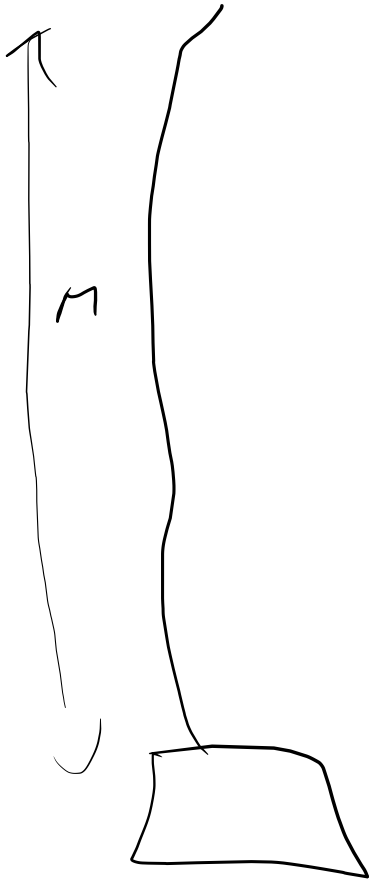
$T \Rightarrow \nu$



$\nu = 80 \cdot 10^9$

$\lambda = \frac{2\pi}{\beta} = \frac{6}{80 \cdot 10^6} = 10^{-8}$

$\lambda = \frac{2\pi}{25 \cdot 10^3} = \frac{6}{75 \cdot 10^3} = 10^{-8} \simeq 8\,m$



$$f = \frac{2\pi}{\lambda}$$

$$f = \frac{c}{\lambda}$$

$$v_{gr} = \frac{c}{n}$$

$$f = \frac{c}{\lambda} = \frac{3 \cdot 10^8}{1} = 3 \cdot 10^8 =$$

$$= 300\ MHz$$