

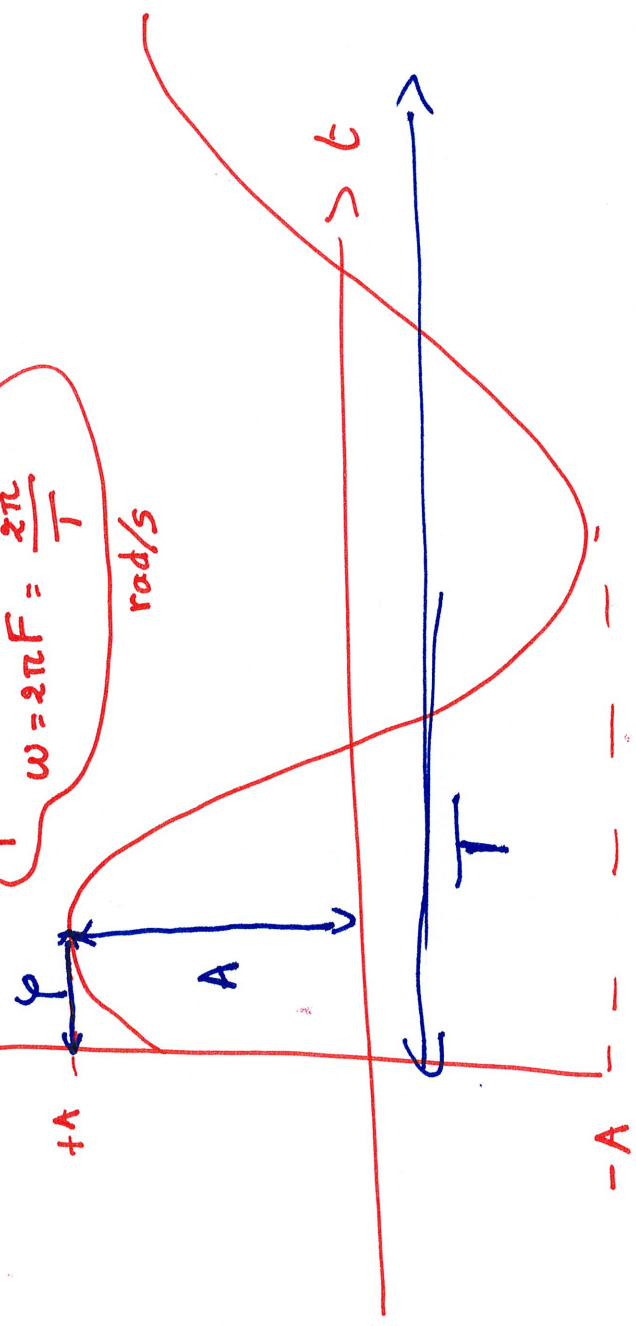
Volts

Amplitude  $\rightarrow$  rad

phase (rad)

$$u(t) = A \cos(\omega t + \varphi)$$

pulsation  $\omega = 2\pi F = \frac{2\pi}{T}$  rad/s



$$f(g(x))$$

$$f'(g(x)) \times g'(x)$$

$$u_c = A \cos(\omega t + \varphi)$$

$$i = C \frac{du_c}{dt}$$

$$i = C \frac{d}{dt} (A \cos(\omega t + \varphi))$$

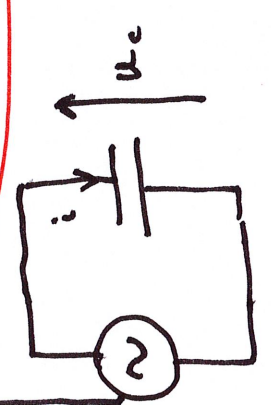
$$= CA \frac{d}{dt} (\cos(\omega t + \varphi))$$

$$i = -CA\omega \sin(\omega t + \varphi)$$

$$-\sin(x) = \cos(x + \frac{\pi}{2})$$

$$i = C\omega A \cos(\omega t + \varphi + \frac{\pi}{2})$$

$$u = A \cos(\omega t + \varphi)$$



$$q = C u_c$$

$$\frac{dq}{dt} = C \frac{du_c}{dt}$$

$$i = C \frac{du_c}{dt}$$

