

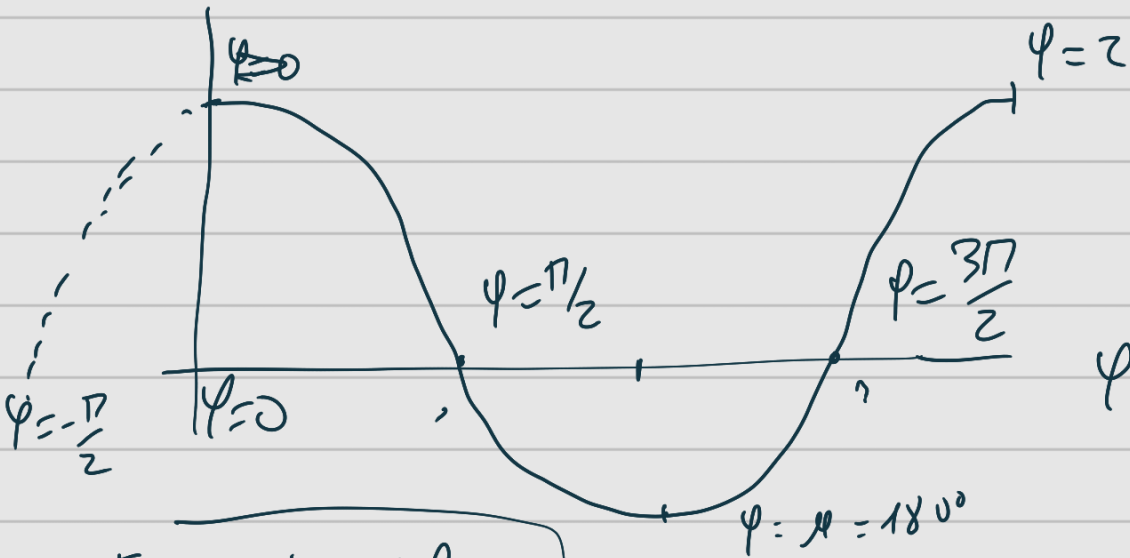
CORRIENTE ALTERNA

$$V(t) = V_0 \cos(\omega t + \varphi_0)$$

↑  
amplitude:  $V_0 = \max |V(t)|$

FASE  $\varphi = \omega t + \varphi_0$

$$V(\varphi + 2\pi n) = V(\varphi)$$



Fase inicial  
 $\varphi(t=0) = \varphi_0$

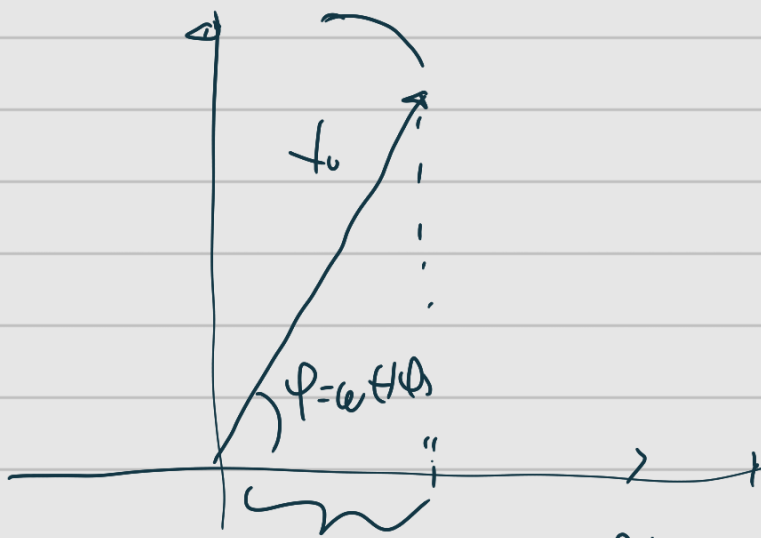


$$\varphi = \omega t + \varphi_0$$

$$\omega = \frac{d\varphi}{dt} = \frac{2\pi}{T}$$

FRECUENCIA ANGULAR rad/s

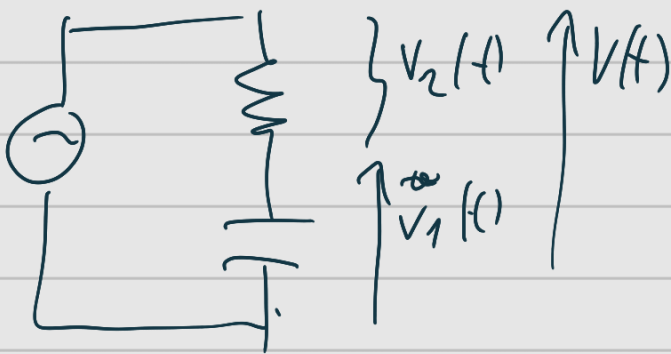
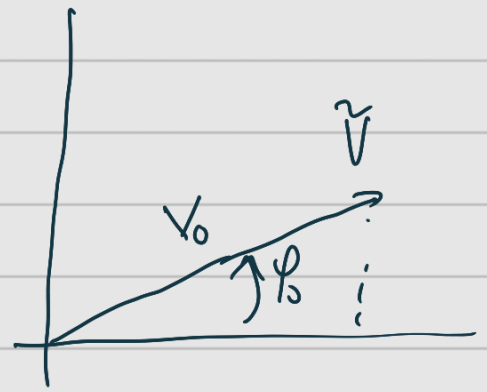
$$\Delta\varphi = \omega \Delta t \quad \left| \quad \frac{\Delta\varphi}{2\pi} \quad \frac{\Delta t}{T}$$



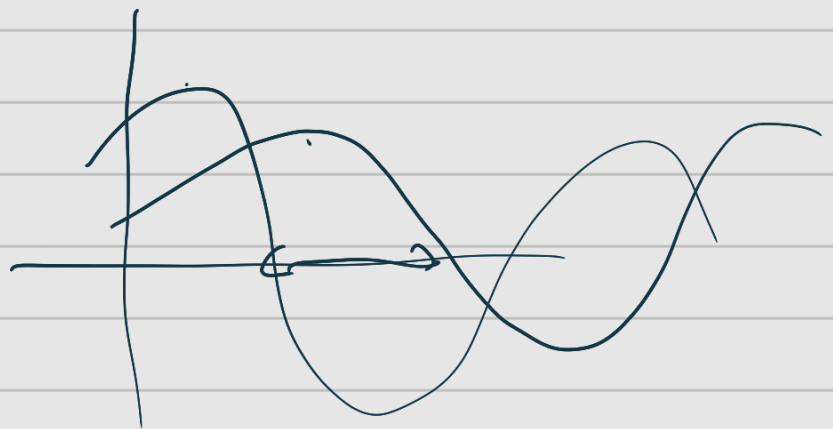
$$V(t) = V_0 \cos(\omega t + \phi_0)$$

Pos en fase en un circuit

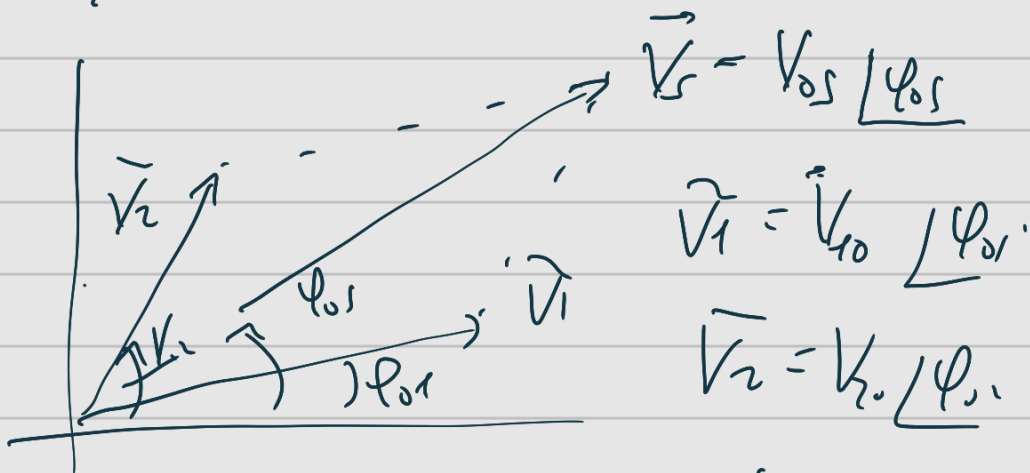
FASOR  
Vector giratorio en  $t=0$



$$V(t) = V_1(t) + V_2(t)$$



Forma suma en suma de las fases



Medida 2,5 DIV Escala 2V/DIV

$$V = 2,5 \text{ DIV} \times 2 \text{ V/DIV} = 5,0 \text{ V}$$

$$T = 10 \text{ DIV} \times 0,0001 \frac{\text{seg}}{\text{DIV}} = 0,001 \text{ s} \Rightarrow f = \frac{1}{T} = \frac{1}{0,001 \text{ s}} = 1000 \text{ Hz}$$