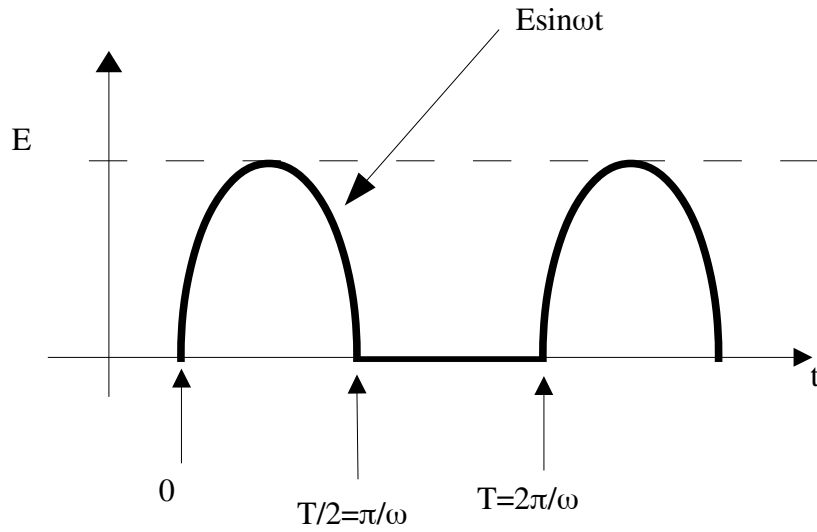


PEA3487 Eletrônica de Potência I
2º Exercício (21/03/2017)

-Entrega em 24/03/2017, até o início da aula.

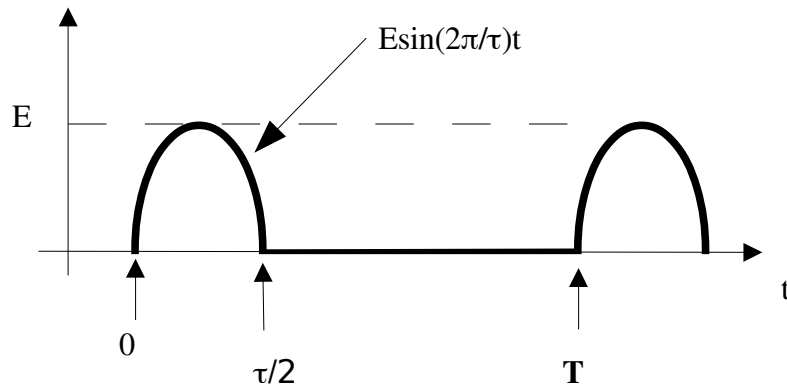
Calcular os valores médios e eficazes para as formas de onda abaixo:

a)



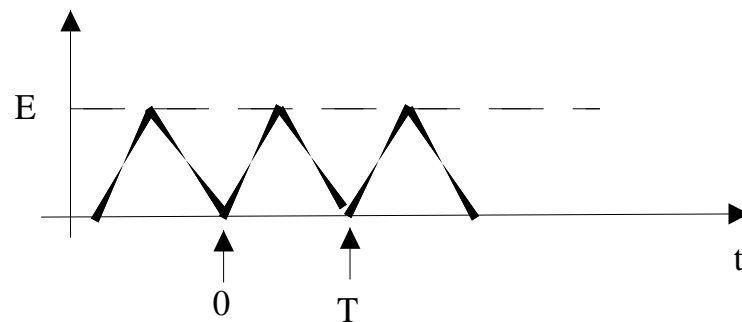
Resp.: $V_{eficaz} = \frac{E}{2}$ $V_{médio} = \frac{E}{\pi}$

b)



Resp: $V_{eficaz} = \sqrt{\frac{\tau}{T}} \cdot \frac{E}{2}$ $V_{médio} = \frac{\tau}{T} \cdot \frac{E}{\pi}$ **(IMPORTANTE: compare com o exemplo da apostila!!)**

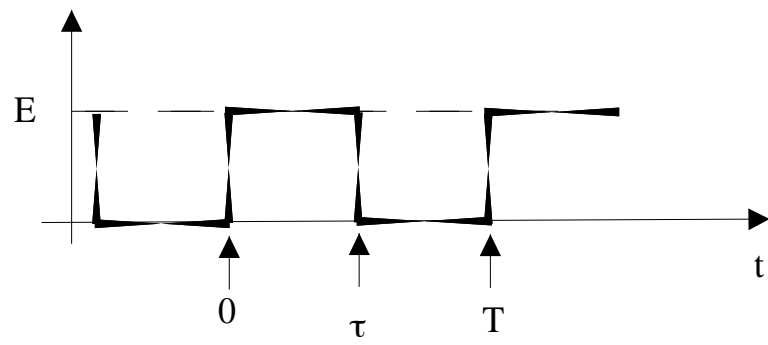
c)



Resp: $V_{eficaz} = \frac{E}{\sqrt{3}}$ $V_{médio} = \frac{E}{2}$

Continua no verso!

d)



Resp: $V_{eficaz} = \sqrt{\frac{\tau}{T}} \cdot E$ $V_{médio} = \frac{\tau}{T} \cdot E$

Lembre-se:

$$\int \sin^2 \omega t \, dt = \int \frac{1 - \cos 2\omega t}{2} \, dt = \frac{t}{2} - \frac{\sin 2\omega t}{4\omega}$$

$$\int \sin^2 \theta \, d\theta = \int \frac{(1 - \cos 2\theta)}{2} \, d\theta = \frac{\theta}{2} - \frac{\sin 2\theta}{4}$$