



TE227

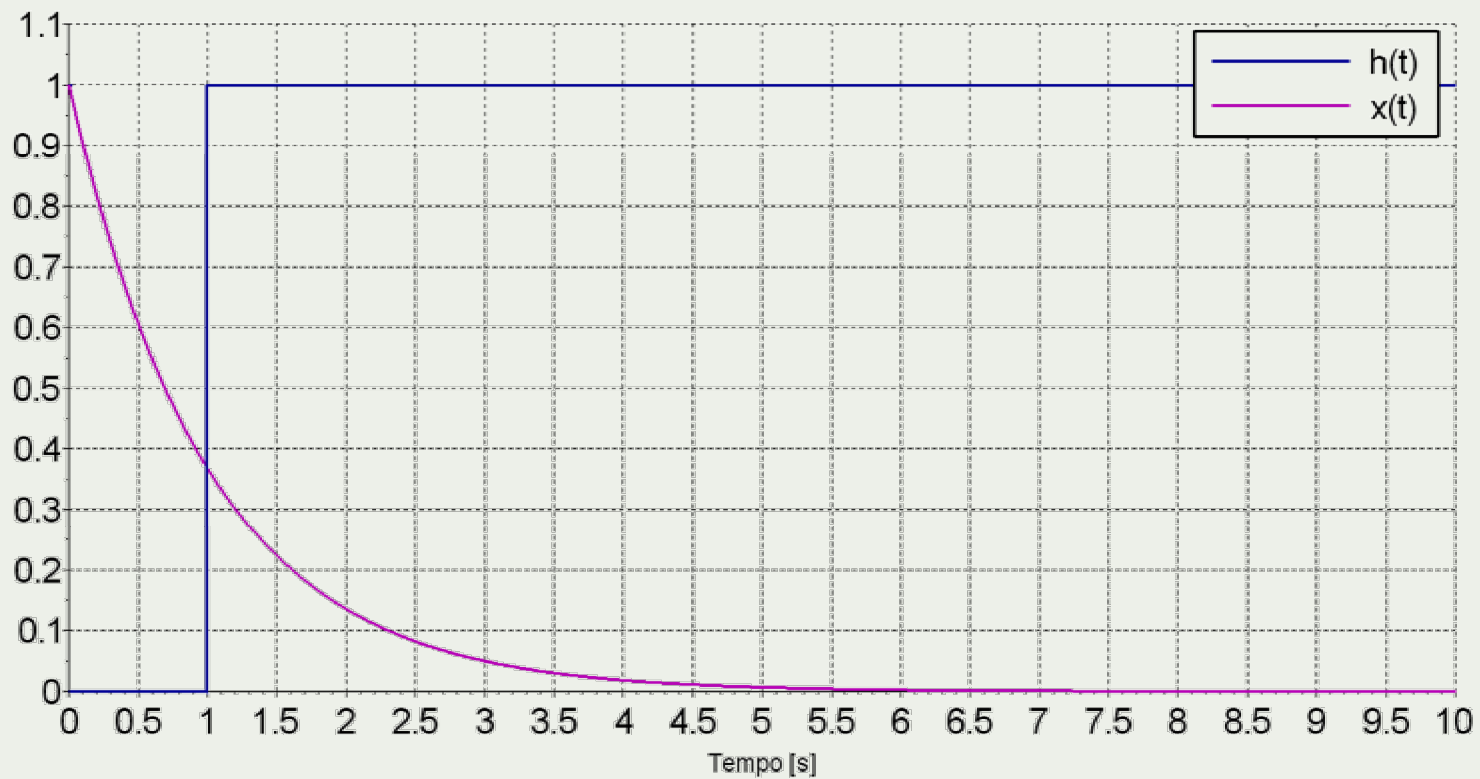
Convolução

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# Exemplo 1

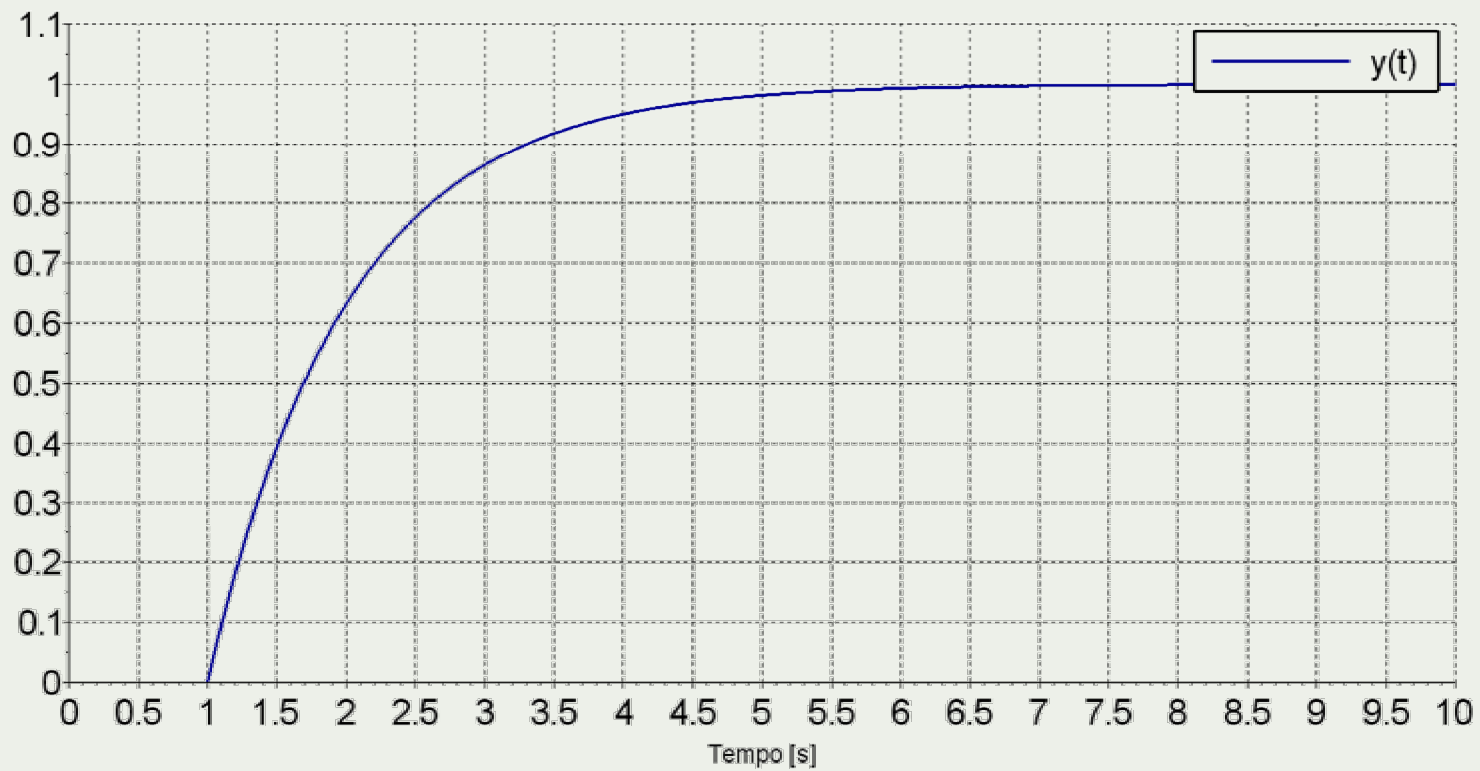
$$x(t) = u(t - 1)$$

$$h(t) = e^{-t}u(t)$$



# Exemplo 1

$$y(t) = 1 - e^{-(t-1)}$$



# Exemplo 5

$$x(t) = \text{sen}(t)u(t)$$

$$h(t) = (3 - t)[u(t - 1) - u(t - 3)]$$

$$y(t) = \begin{cases} \text{sen}(t - 1) - 2\cos(t - 1) - t + 3, & 1 \leq t < 3 \\ \text{sen}(t - 1) - \text{sen}(t - 3) - 2\cos(t - 1), & t \geq 3 \end{cases}$$

