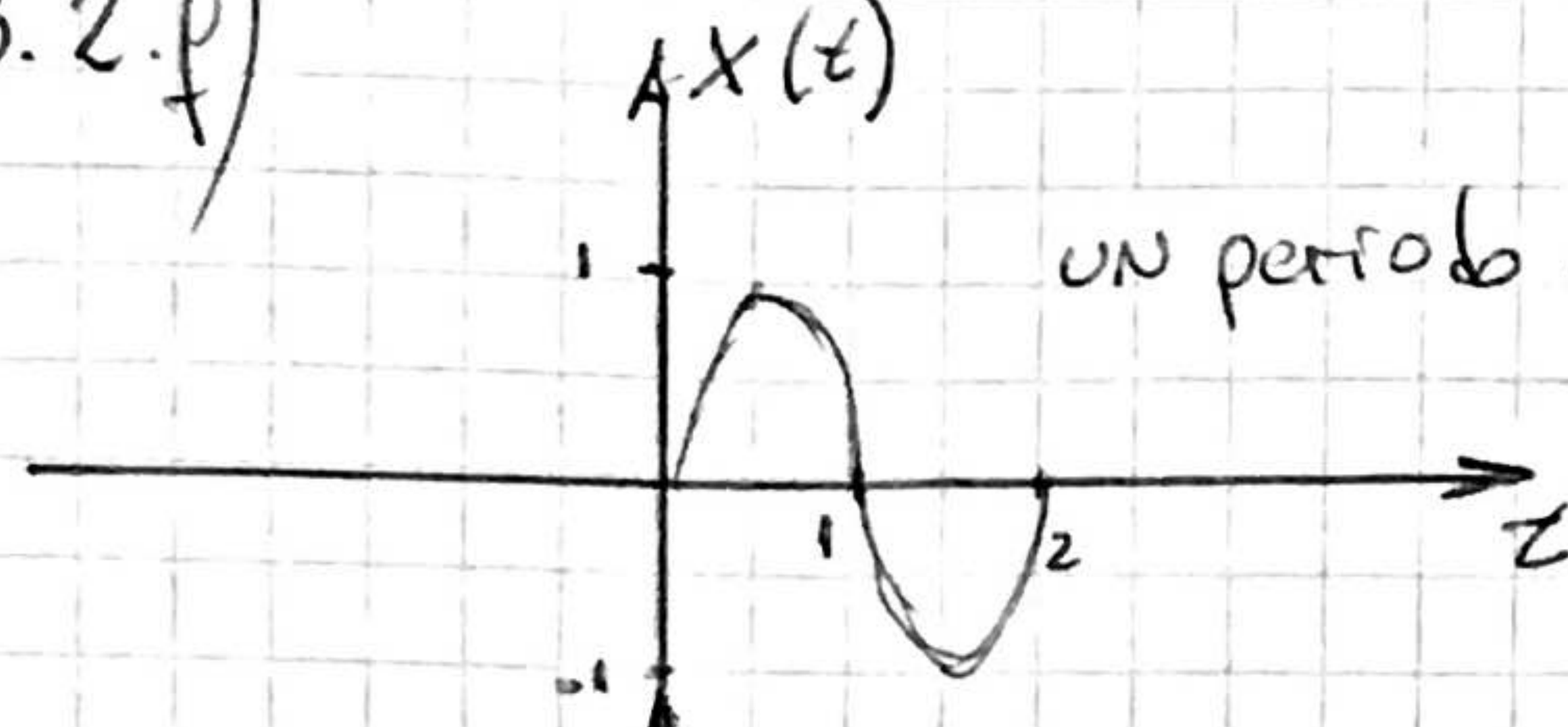
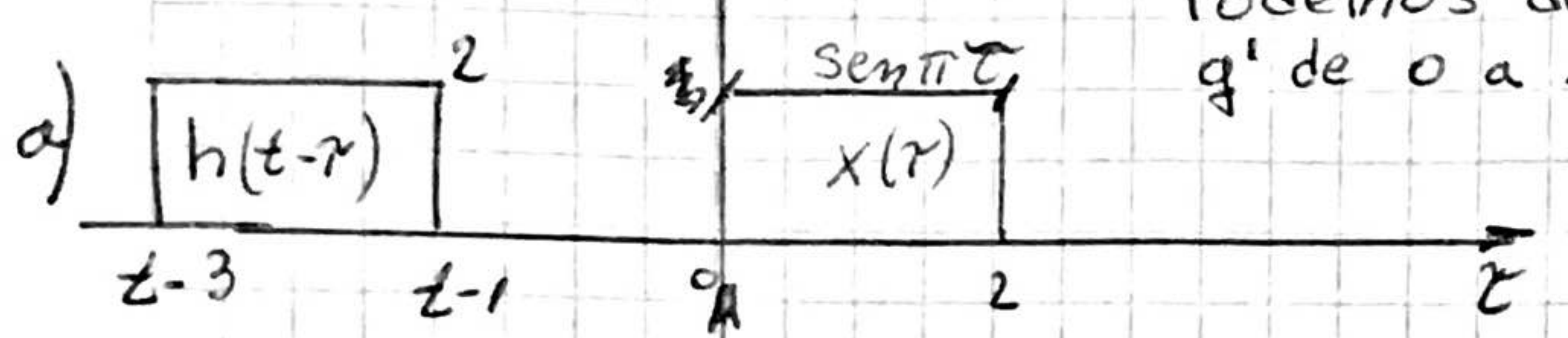
3.2.f)

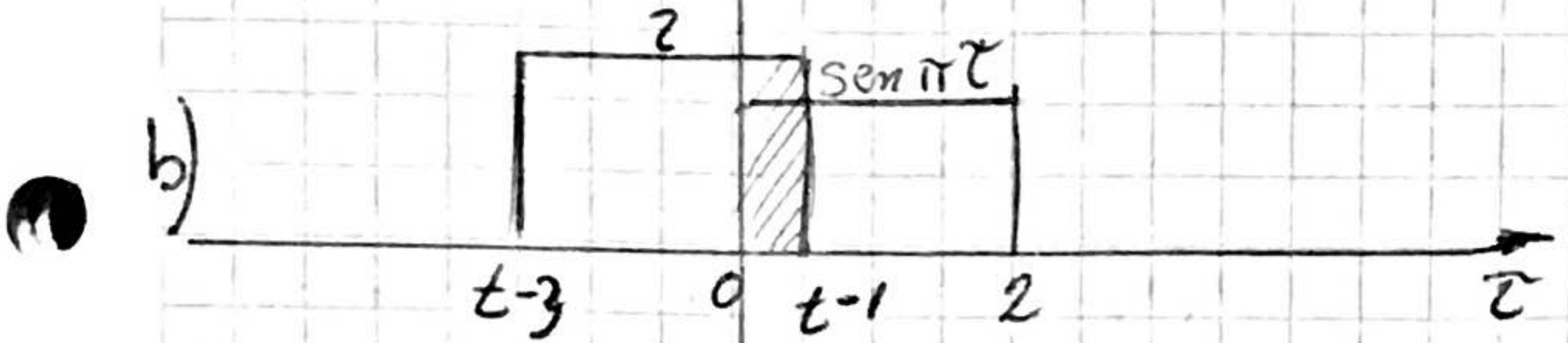


un periodo de sen πt.

Podemos decir.
q' de 0 a 2 $x(\tau)$ vale sen $\pi\tau$

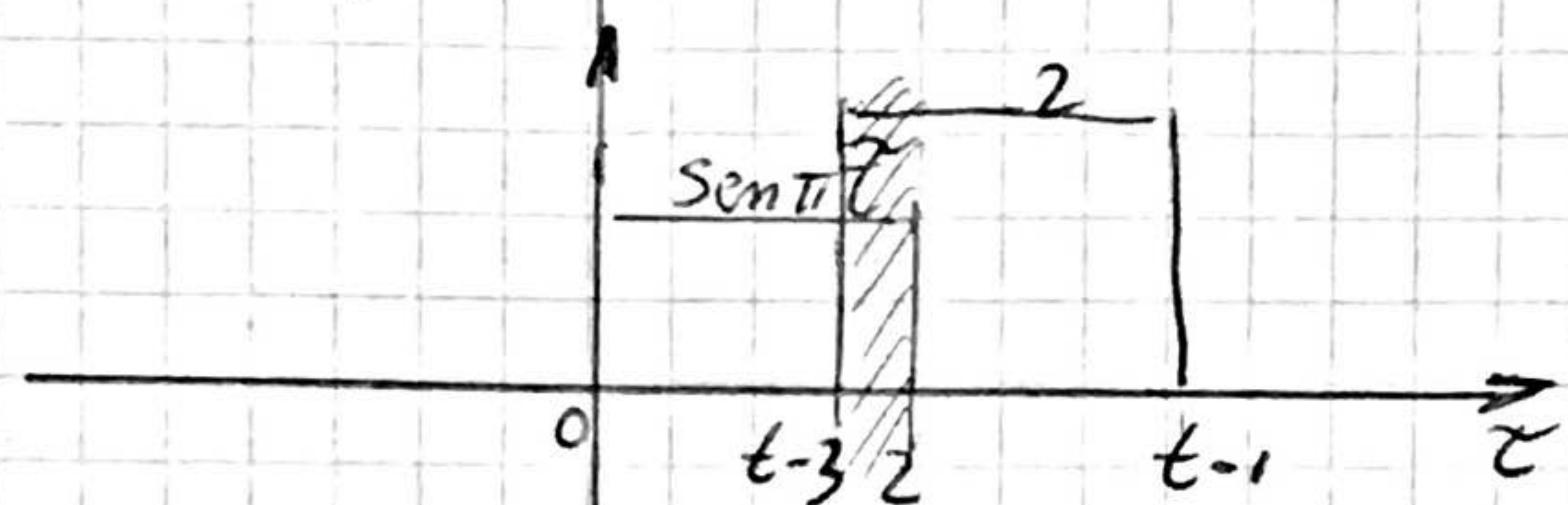


a) $y(t) = 0$; $\boxed{t<1}$



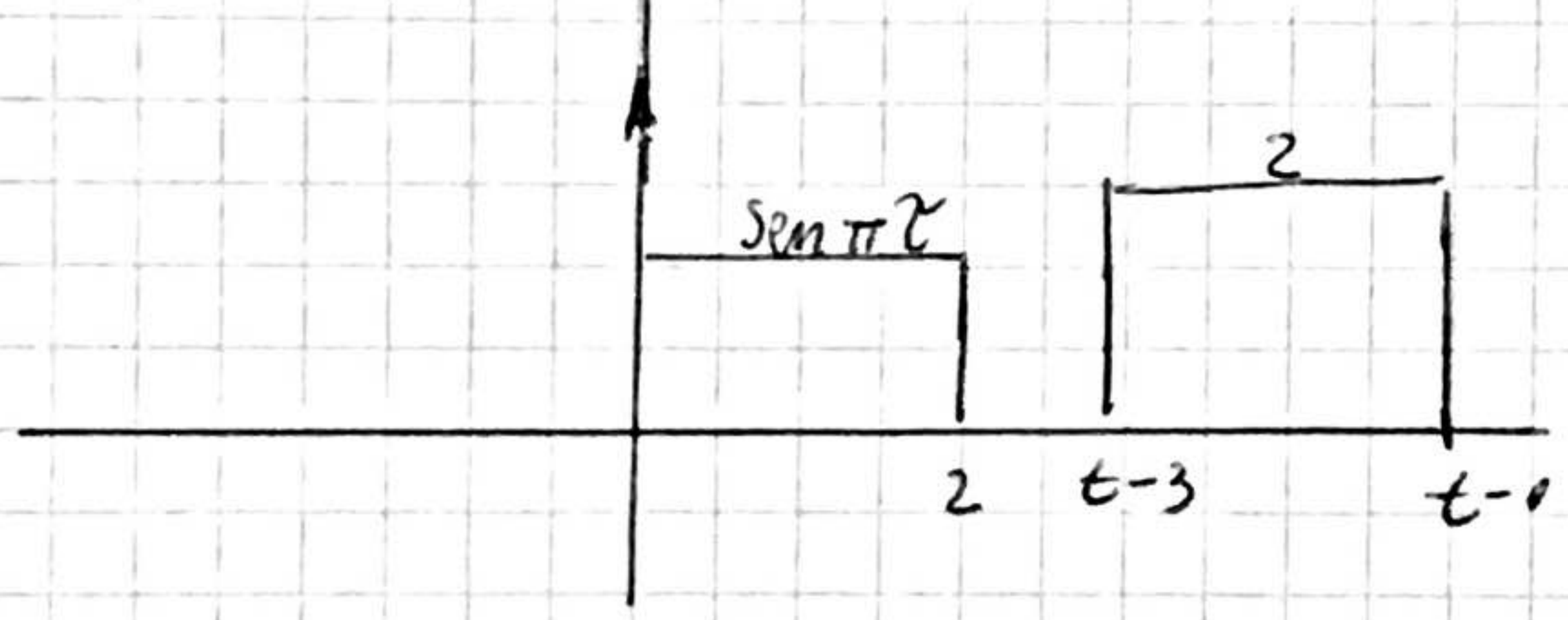
b) $y(t) = \frac{-2}{\pi}\left(\cos \pi(t-1) - 1\right)$

$\boxed{1 < t < 3}$



c) $y(t) = -\frac{2}{\pi}\left(\cos \pi 2 - \cos \pi(t-3)\right)$

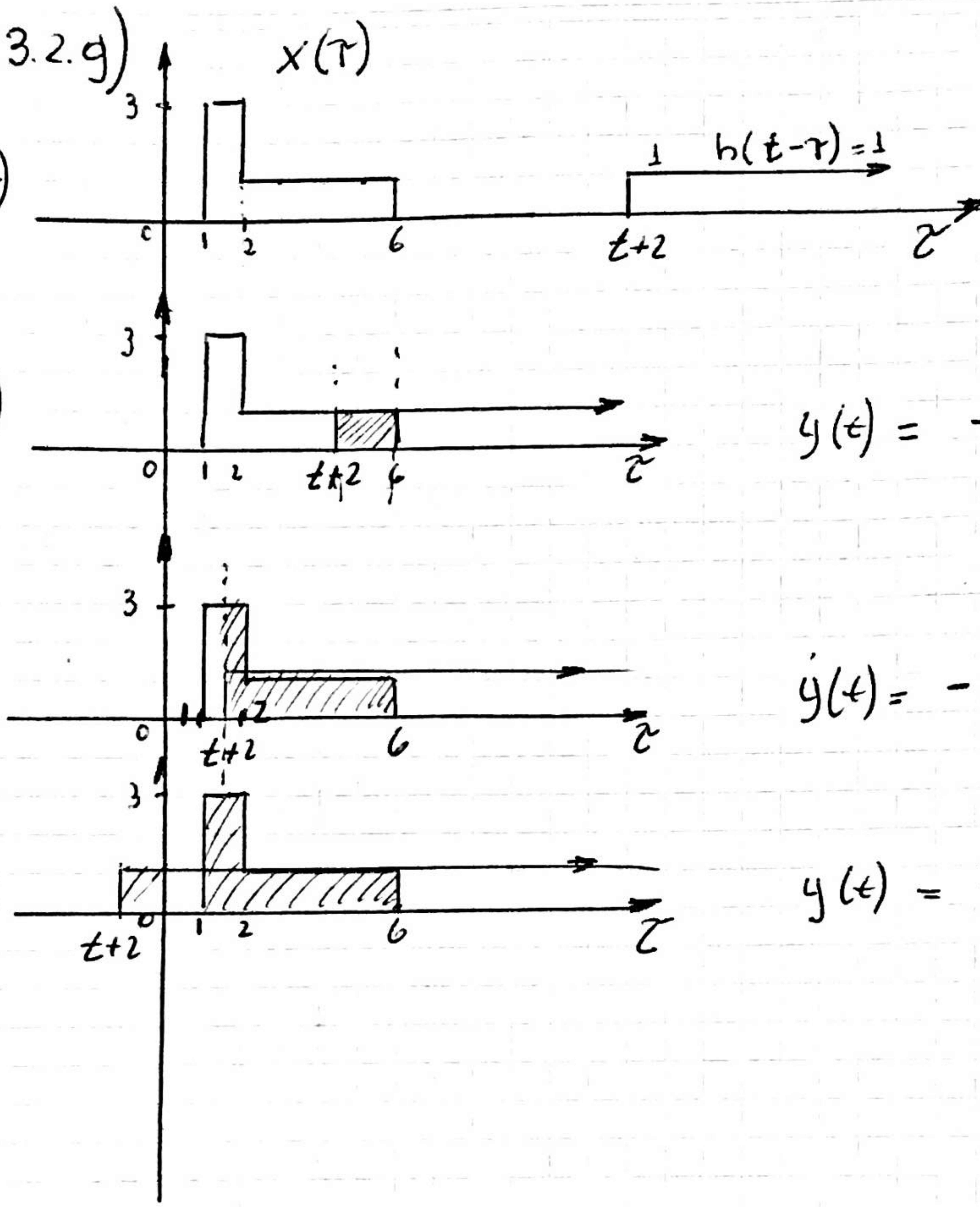
$\boxed{3 < t < 5}$



d) $y(t) = 0$, $\boxed{5<t}$

Tener en cuenta que cada resultado es solución de la convolución según el instante de tiempo ó intervalo de tiempo que querramos analizar.

3.2.g)



a) $y(t) = 0 \; ; \; \boxed{4 < t}$

b) $y(t) = -t + 4 \; ; \; \boxed{0 < t < 4}$

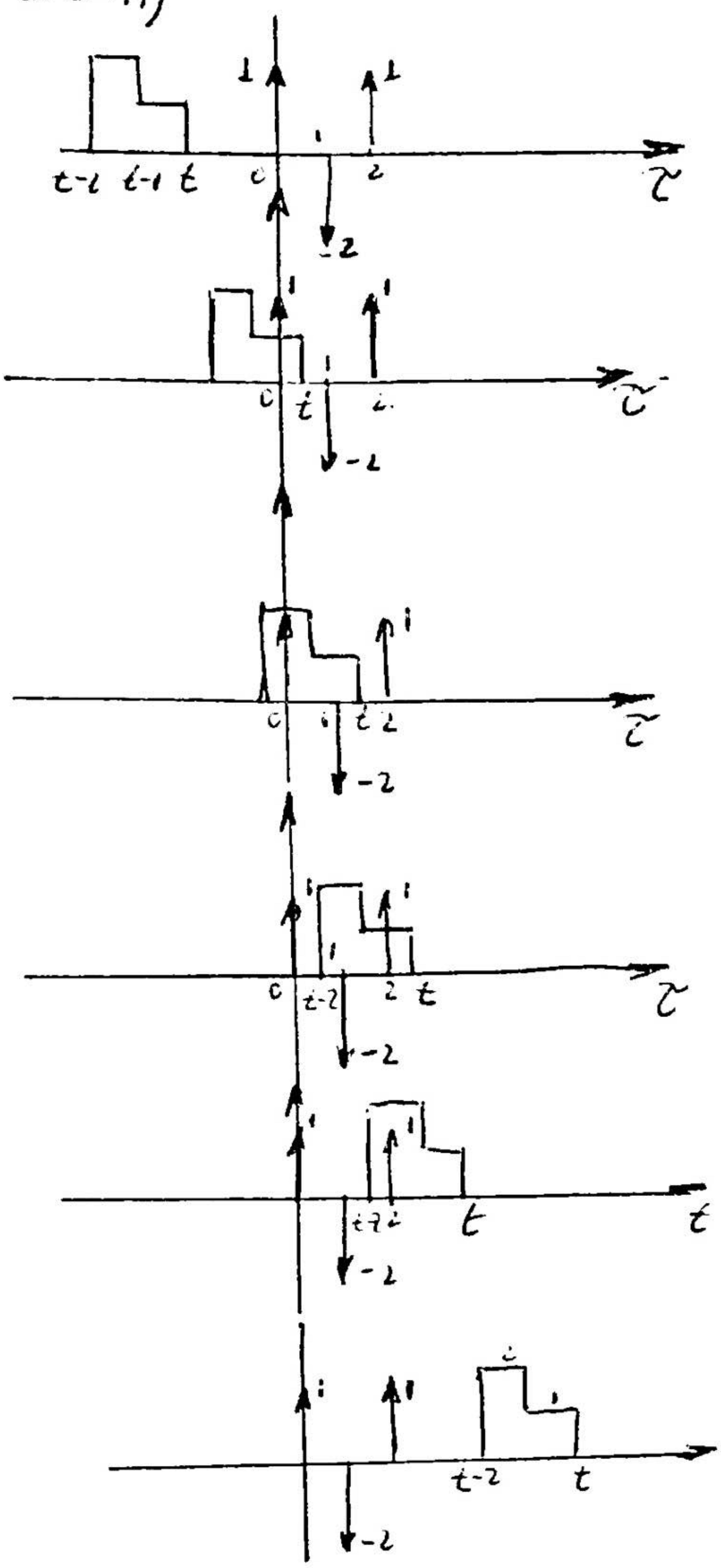
c) $y(t) = -3t + 4 \; ; \; \boxed{-1 < t < 0}$

d) $y(t) = 7 \quad \boxed{t < -1}$

3.2. J) No resolver.

No aplica para la materia.

3.2.h)



$y(t) = 0$; $\boxed{t<0}$

por propiedad del impulso la salida $y(t)$ es la señal valuada en el impulso

$\Rightarrow$ $y(t) = 1$ p/ $\boxed{0<t<1}$

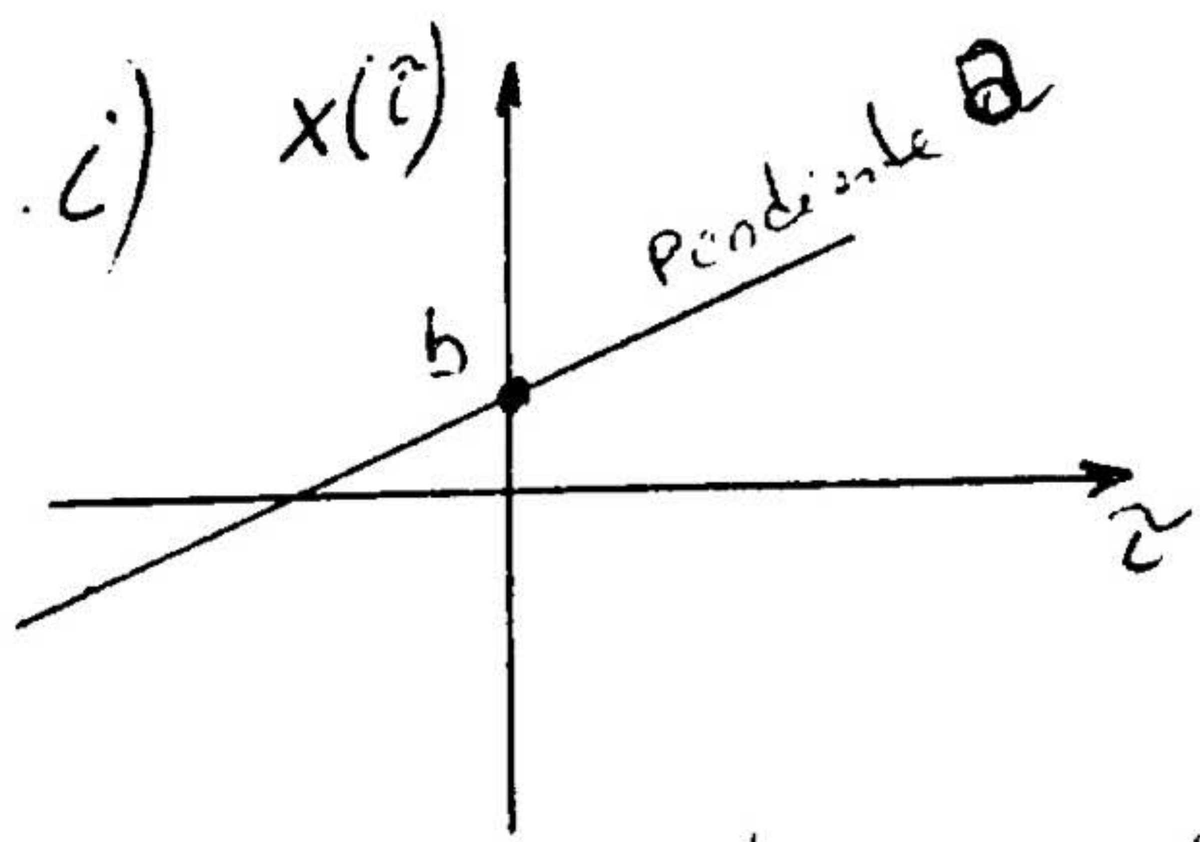
$y(t) = -2 + 2 = 0$; $\boxed{1<t<2}$

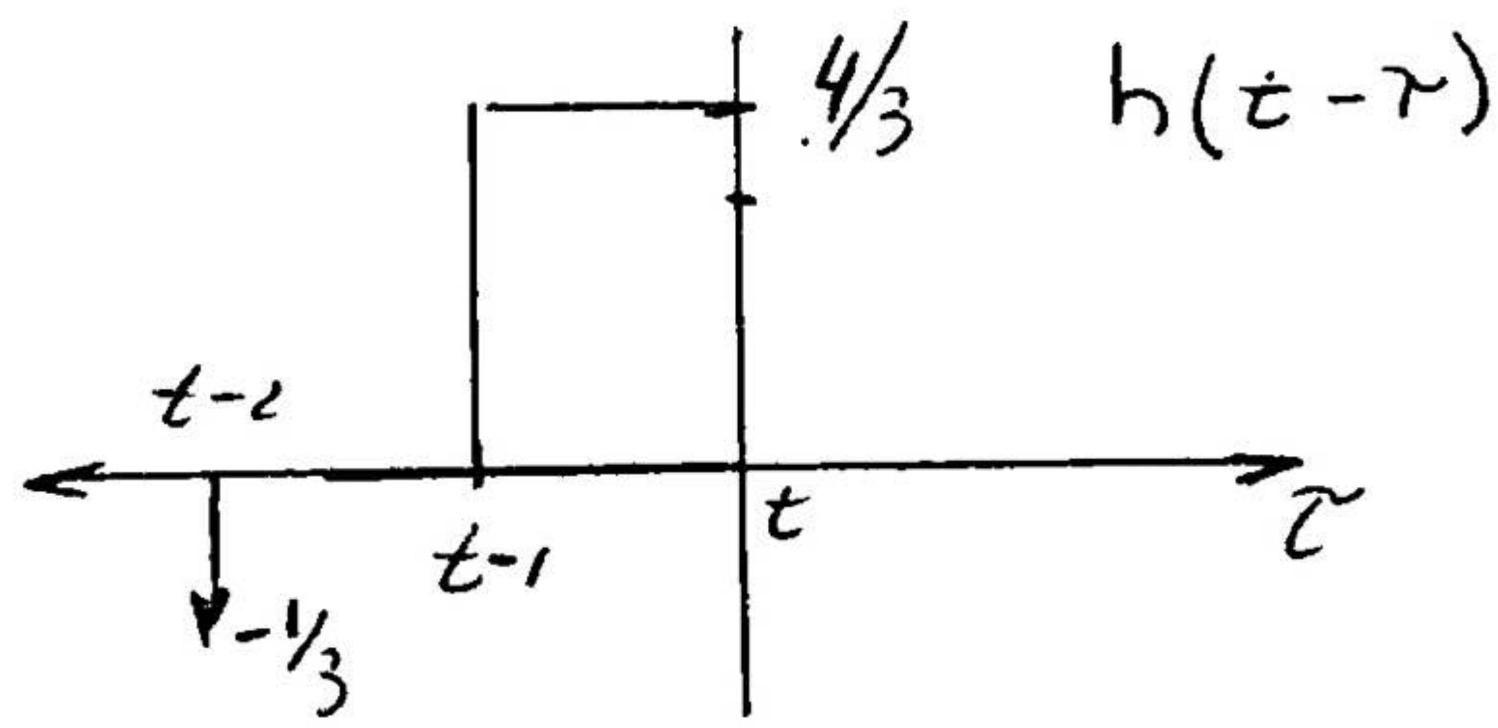
$y(t) = 1 - 4 = -3$; $\boxed{2<t<3}$

$y(t) = 2$; $\boxed{3<t<4}$

$y(t) = 0$; $\boxed{4<t}$

3.2.i)





$x(\tau)$ es una recta. $\Rightarrow$ $x(t) = a\tau + b$.

$\Rightarrow$ $\boxed{y(t) = at + b}$, $\forall t$