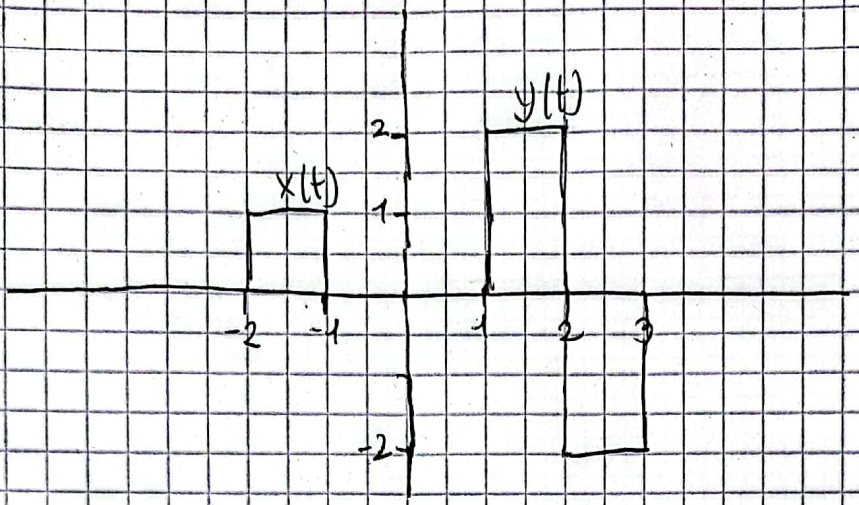
Juan Andres Melo Melo - Punto 1



Construyo $x(t)$

$$x(t) = u(t+2) - u(t+1)$$

Construyo $y(t)$

$$y(t) = 2[u(t-1) - u(t-2)] - 2[u(t-2) - u(t-3)]$$

$$y(t) = 2u(t-1) - 4u(t-2) + 2u(t-3)$$

Construyo $z(t) = x(t) + y(t)$

$$z(t) = [u(t+2) - u(t+1)] + [2u(t-1) - 4u(t-2) + 2u(t-3)]$$

$$z(t) = u(t+2) - u(t+1) + 2u(t-1) - 4u(t-2) + 2u(t-3)$$

- $-\infty < t \leq -2 \rightarrow t = 0$
- $-2 < t \leq -1 \rightarrow t = 1 \rightarrow x(t)$
- $-1 < t \leq 1 \rightarrow t = 0$
- $1 < t \leq 2 \rightarrow t = 1$
- $2 \leq t \leq 3 \rightarrow t = -2$

Punto 2 - Juan Andrés Melo Melo

Grafique $w(t) = z(t) * r(2|t+K|-6$ con $K = 2(q+1)$

$K = 2(1+1) = 4$

$w(t) = z(t) * r(2|t+4|-6)$

~~$w(t) = z(t) * r(2t+8-6)$~~

~~$w(t) = z(t) * r(2t+2)$~~

$w(t) = [u(t+2) - u(t+4) - u(t+1) + 2u(t-1) - 4u(t-2) + 2u(t-3)] *$
$r[2(t+4)-6)$