¿Qué pasó muchachos?

UNIVERSIDAD DE COLIMA

5

Carlos Emmanuel Anguiano Pedraza

Gilberto Alexander Zing Perez

5C

Análisis de señales

Erika Margarita Ramos Michel

I

1) $X(n)=0$ $n \leq -2$ y $n>4$ $\quad n<1$ y $n>7$

$x[-n-4] \rightarrow n=(-)+4$

$-n-4<-2 \rightarrow (-(-2))-4=-2$ $\quad R = n<-2$ y $n>-8$

$-n-4>4 \rightarrow (-(4))-4=-8$

2) $X(n)=0$ $n<-2$ y $n>4$ $\quad n<-6$ y $n>0$

$x[n+4] \rightarrow n=(-)-4$

$n+4<-2 \rightarrow (-(-2))+4=2$ $\quad R =$ $n<2$ y $n>0$

$n+4>4 \rightarrow (-(4))+4=0$

3) $X(n)=0$ $n<-2$ y $n>4$

$x[-n] \rightarrow n=(+)$

$+n<-2 \rightarrow (+)-2=-2$ $\quad n<-4$ y $n>2$

$R = n<-2$ y $n>4$

$+n>4 \rightarrow (+)4=4$

4) $X(n)=0$ $n<-2$ y $n>4$

$x[-n+2] \rightarrow n=-2$ $\quad n<-2$ y $n>4$

$n-2<-2 \rightarrow ((+)-2)-2=-4$ $\quad R = n<-4$ y $n>2$

$n-2>4 \rightarrow ((+)4)-2=2$

5) $X(n)=0$ $n<-2$ y $n>4$

$x[-n-2] \rightarrow n=2$ $\quad n<-6$ y $n>0$

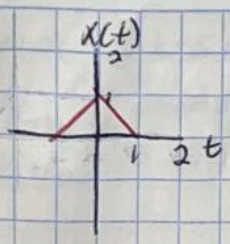
$n+2<-2 \rightarrow ((+)-2)+2=0$ $\quad R = n<0$ y $n>6$

$n+2>4 \rightarrow ((+)4)+2=6$

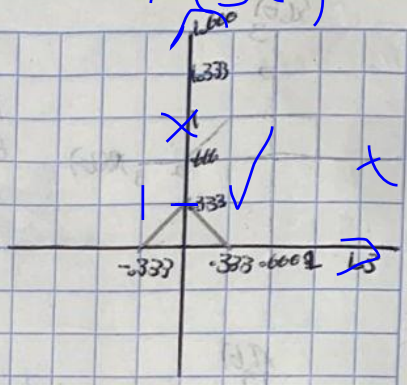
$-n-2<-2$, $-n<-4$, $n>0$

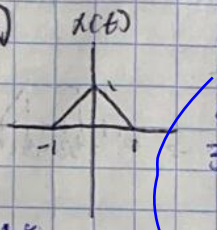
$-n-2>4$, $-n>6$, $n<-6$

II

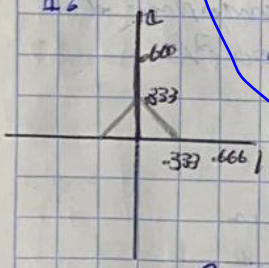
1) 

x(3t)
Se comprime 3 veces en el tiempo



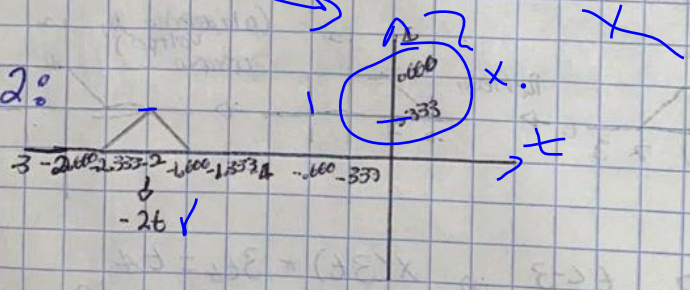
2) 

x(3t+2)
1º Se comprime 3 veces en el tiempo

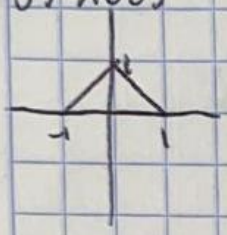


Despejaron mal tt=-2/3

2º Desplazamiento
$3t_t + 2 = 0$; $t_t = -2(3) = -6$
Se adelanta 6 u. de t.



3) $x(t)$

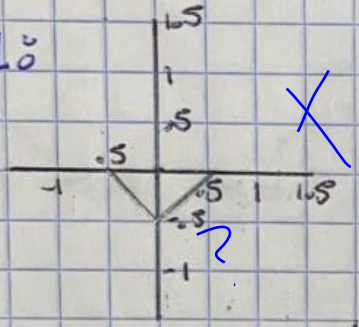


$x(-2t-1)$

1º Se refleja en el tiempo y se comprime 2 veces

por qué reflejaste en amplitud?

1º



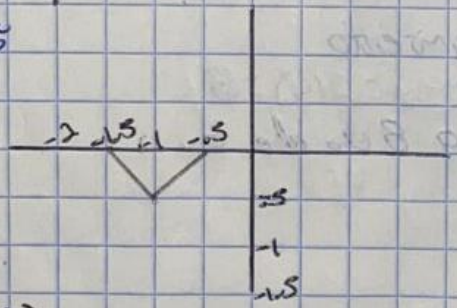
2º) Desfasamiento

$-2t-1=0 \rightarrow t_0=-2(0)=-2$

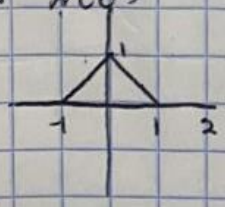
Se adelanta 2 u. de t_0

Volvieron a despejar mal

2º



4) $x(t)$

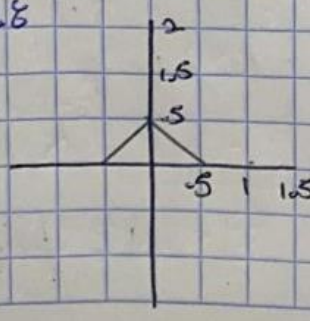


$x(2(t+2)) \rightarrow x(2t+4)$

1º Se cauprime 2 veces en el tiempo

Despeje incorrecto :(

1º

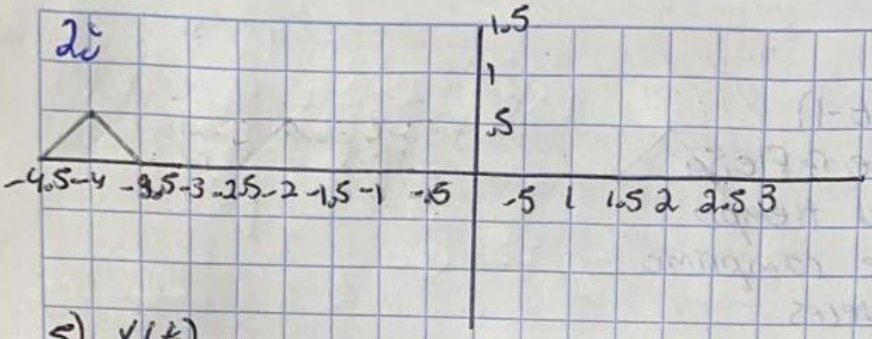


2º Desfasamiento

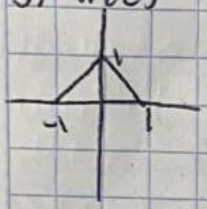
$2t+4=0 \rightarrow t_0=2(-4)=-8$

Se adelanta 8 u. de t_0.

2)



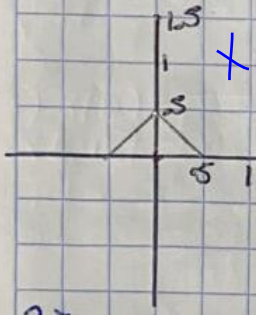
5) $x(t)$



$x(2(t-2)) \rightarrow x(2t-4)$

1º Se comprime 2 veces en el tiempo

2.



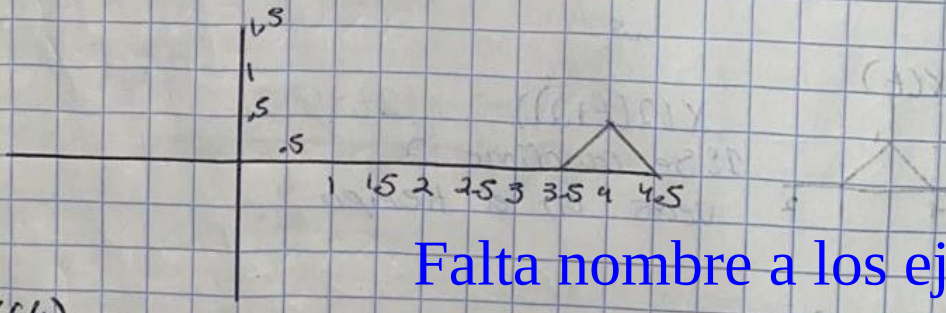
+

2º Desfasamiento

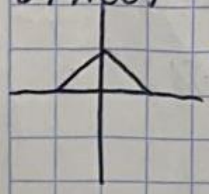
$2t-4=0 \rightarrow t=2(4)=8$

Se atrasa 8 u. de t.

2)



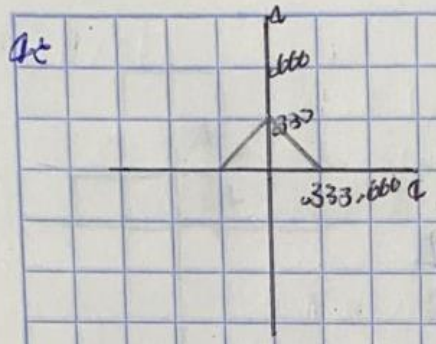
6) $x(t)$



$x(3t)+x(3t+2)$

1º Se comprime 3 veces en el tiempo

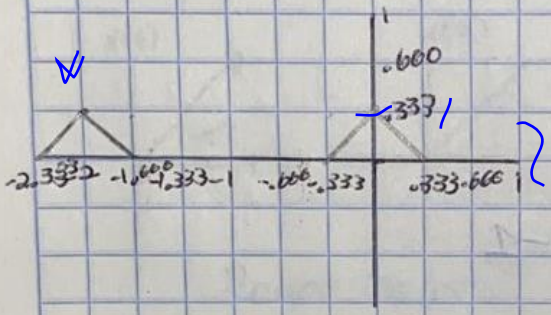
Falta nombre a los ejes, las flechas también. Los desplazamientos fueron incorrectos por despejes erróneos



2º Defasamento

$3t_2 + 2 = 0$; $t_2 = 3(-2) = -6$

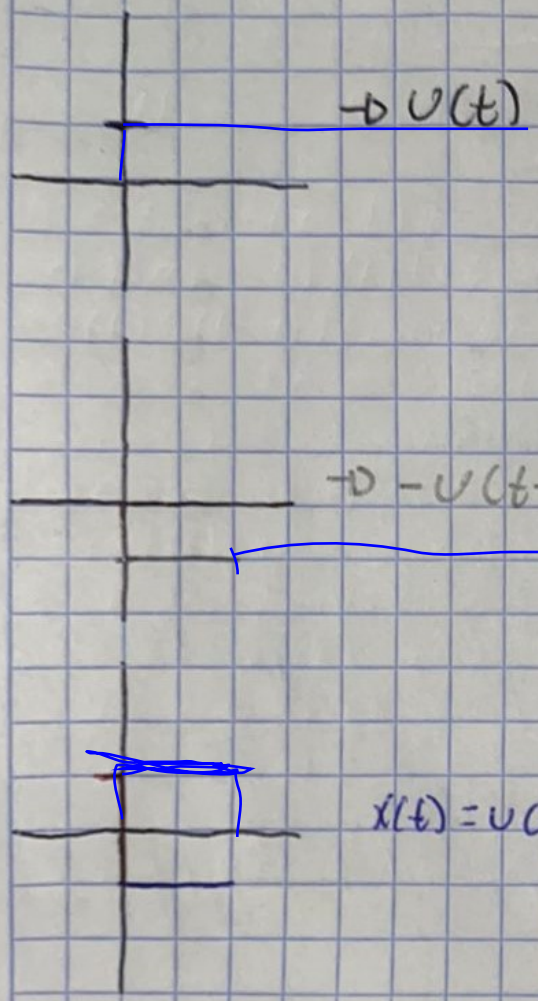
se adelanta 6 u. de t_0.



(-)

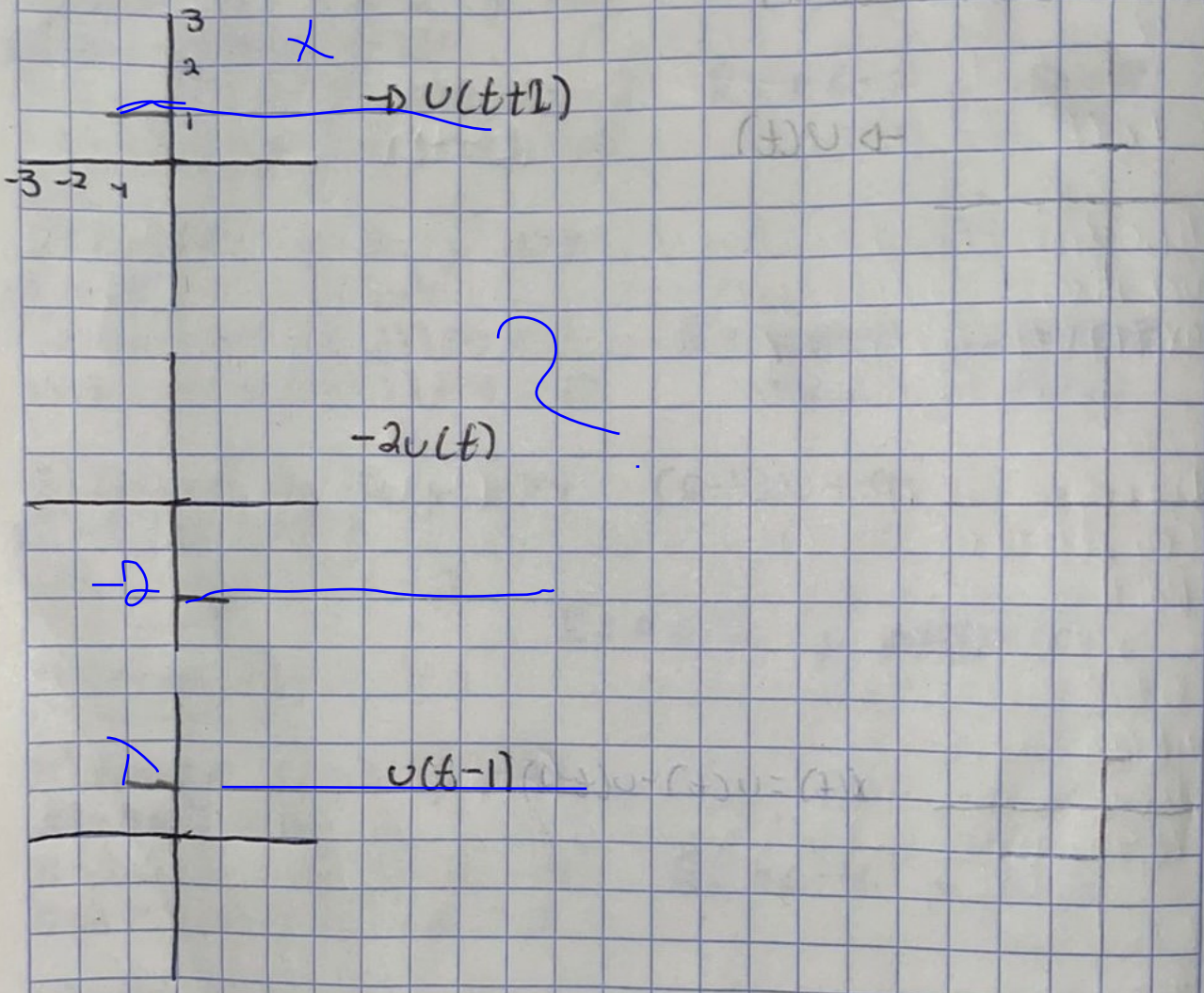
III

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

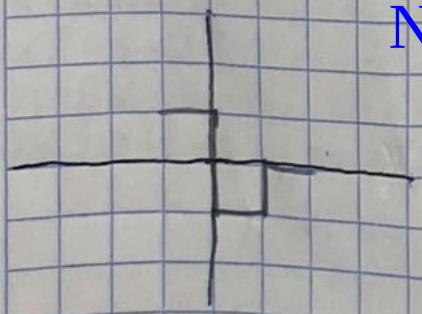


$x(t) = u(t) - u(t-2)$

2) $v(t+1) - 2v(t) + v(t-1)$



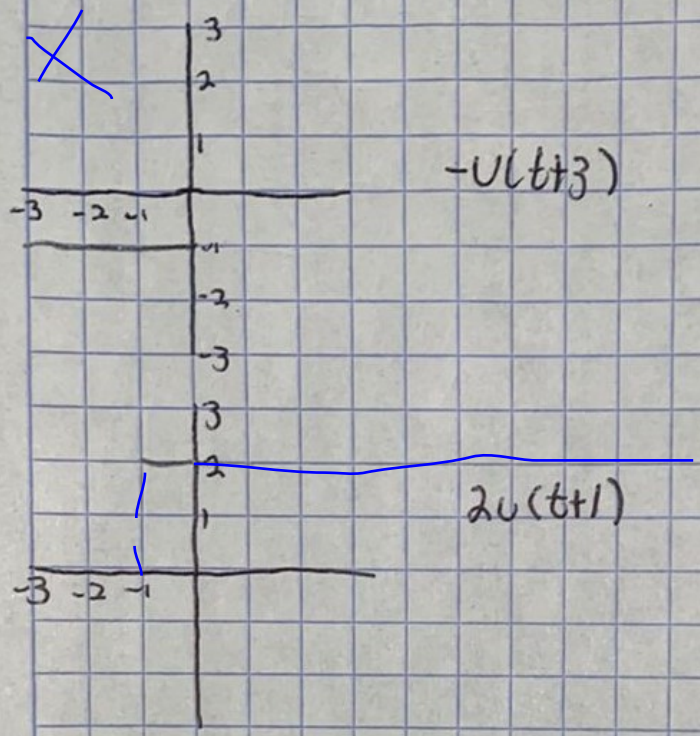
No entiendo cómo obtuvieron esta gráfica

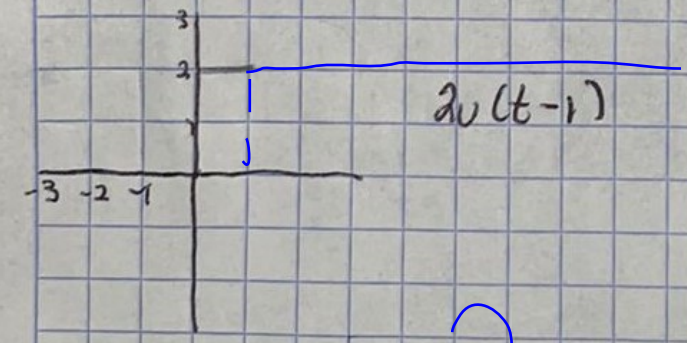


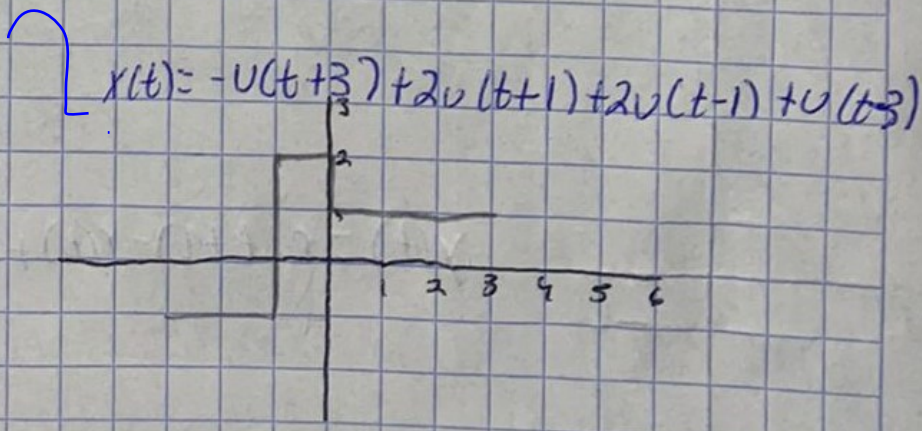
$v(t+1) - 2v(t) + v(t-1)$

3)

$x(t) = -u(t+3) + 2u(t+1) + 2u(t-1) + u(t-3)$

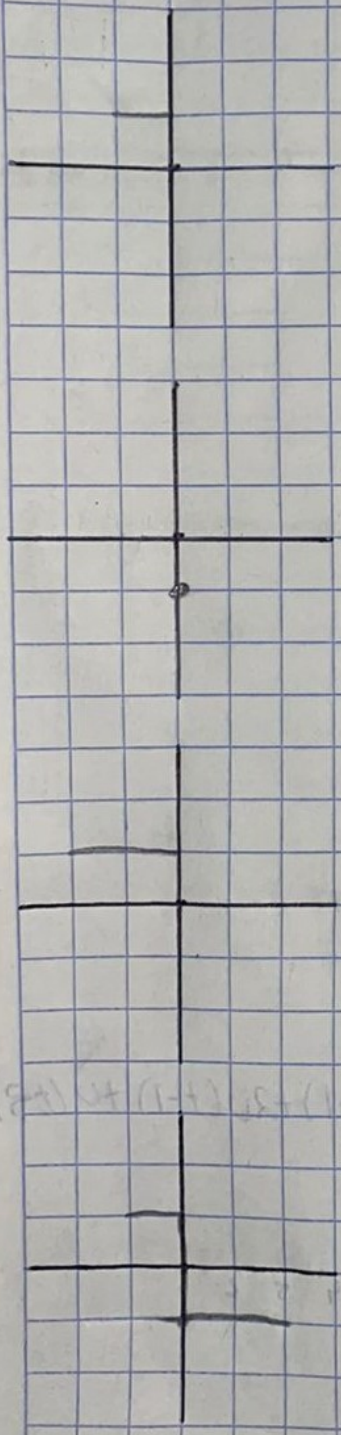






4)

$y(t) = r(t+1) - r(t) + r(t+2)$



$r(t+1)$

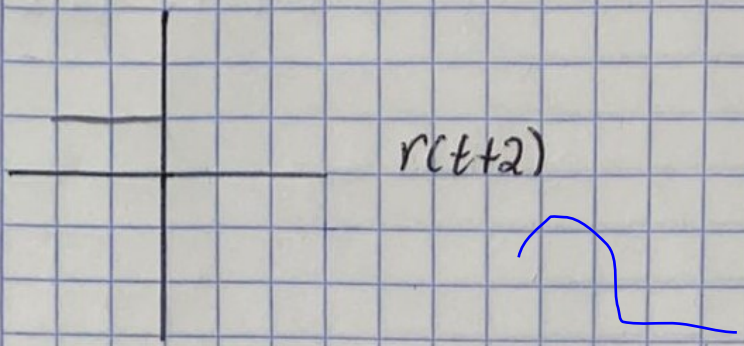
$-r(t)$

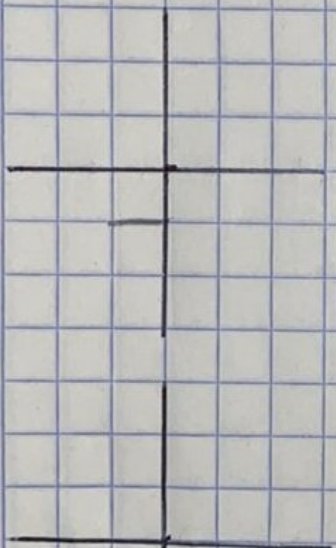
$r(t+2)$

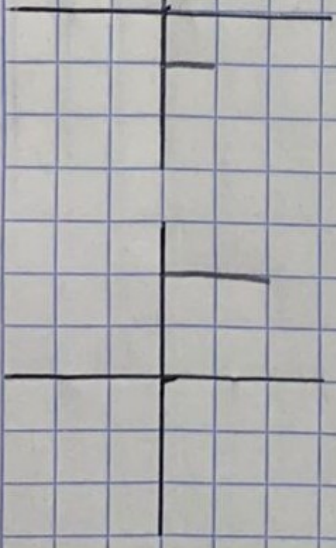
$y(t) = r(t+1) - r(t) + r(t+2)$

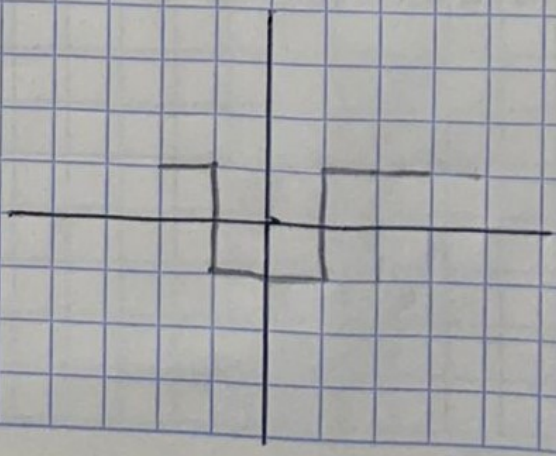
5)

$y(t) = r(t+2) - r(t+1) - r(t-1) + r(t-2)$

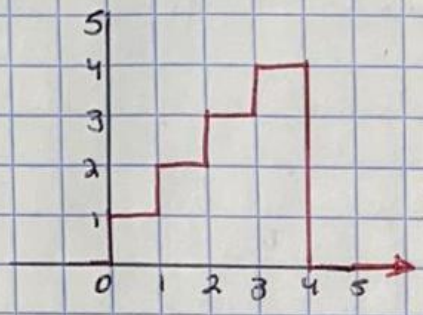




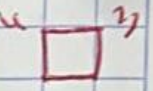




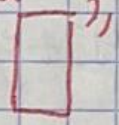
IV $x_1(t)$



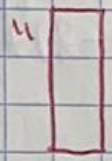
1º Se comprime 2 veces
$x(t) = g(t) + g(2t)$



2º Se atrasa 1 unidad de tiempo y se amplifica 2 veces
$x(t) = g(t) + g(2t) + 2g(t-1)$



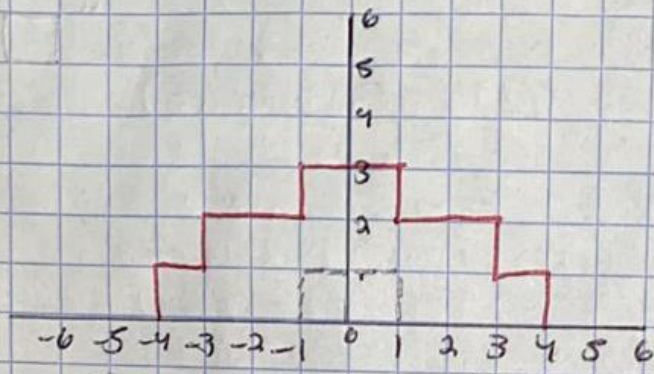
3º Se atrasa 2 unidades de tiempo y se amplifica 5/2 veces
$x(t) = g(t) + g(2t) + 2g(t-1) + 5/2\, g(t-2)$



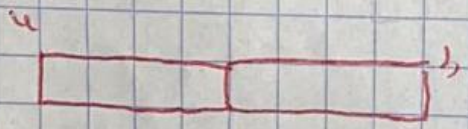
4º Se atrasa 3 u.d.t. y se amplifica 3 veces
$x(t) = g(t) + g(2t) + 2g(t-1) + 5/2\, g(t-2) + 3g(t-3)$

$R = x(t) = g(t) + g(2t) + 2g(t-1) + 5/2\, g(t-2) + 3g(t-3)$

$x_2(t)$



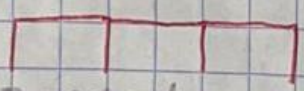
1: $x(t) = g(t) + g(2t+4) + g(2t-4)$



2) Desplazamiento vertical y Horizontal

$x(t) = g(t) + g(2t+4) + g(2t-4) + g(t)+1 + g(t-2)+1 + g(t+2)+1$

2 "



3) Desplazamiento vertical

$x(t) = g(t) + g(2t+4) + g(2t-4) + g(t)+1 + g(t-2)+1 + g(t+2)+1 + g(t)+2$

R/ $x(t) = g(t) + g(2t+4) + g(2t-4) + g(t)+1 + g(t-2)+1 + g(t+2)+1 + g(t)+2$

$g(t)+g(t/3)+g(t/4)$

Norma