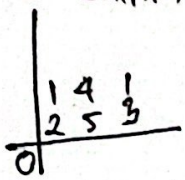
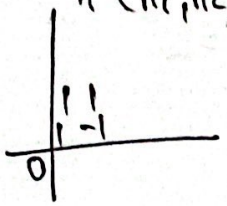
Nama = Syahrul Wahyudi
NRP = 05092111098
Matkul = Sinyal & Sphimasi

Convolution 2D

$x(n_1,n_2)$

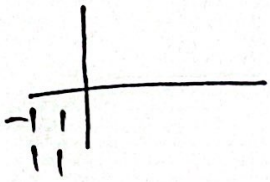


$h(n_1,n_2)$



$$g(n_1,n_2) = \sum_{k_1=-a}^{\infty} \sum_{k_2=-\infty}^{\infty} x(k_1,k_2)\, h(n_1-k_1, n_2-k_2)$$

Dilesmunkan utk $h(n_1,n_2)$ terhadap origin



Jadi

0) 1 4 1
-1 (1.2) 5 3 $\Rightarrow -1(0)+2 = 2$
1 1

0) 1 4 1
(-1.2)(1.5) 3 $\Rightarrow -1(2)+5 = 3$
1 1

0) 1 4 1
(-1.2) (1.5) (1.3) $\Rightarrow -5+3 = -2$
1 1

0) 1 4 1
2 5 (-13) 1 $\Rightarrow -3+(0) = -3$
1 1

0) -1 (1.1) 4 1
1 (1.2) 5 3 $\Rightarrow 1(1)+1(2) = 3$

d) (-1.1) (1.4) 1 $\Rightarrow -1+4+2+5 = 10$
(1.2) (1.5) 3

d) 1. (-1.4) (1.1) $\Rightarrow -4+1+5+3 = 5$
2 (1.5) (1.3)

d) 1 4 (-1.1) 1 $\Rightarrow -1+3+0+0 = 2$
2 5 (1.3) 1

d) -1 1
1 (1.1) 4 1 $\Rightarrow$ 1
2 5 3

d) -1 1
(1.1) (1.4) 1 $\Rightarrow 1+4 = 5$
2 5 3

d) -1 1
1 (1.4) (1.1) $\Rightarrow 4+1 = 5$
2 5 3

d) -1 1
1 4 (1.1) 1 $\Rightarrow$ 4
2 5 3

$g(n_1, n_2) \Rightarrow$

1	5	5	1
3	10	5	2
2	3	-2	-3