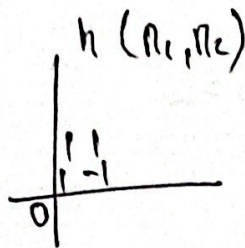
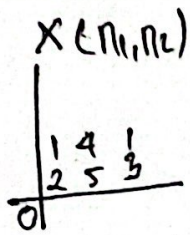


Nama = Syahrul Wahyudi

NRP = 5009211098

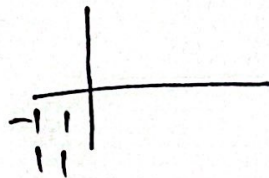
Matakul = Sinyal & Sistem

Convolution 2D



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

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



Jadi

$$\begin{array}{ccc} & 1 & 4 & 1 \\ 0 > & -1 & (1.2) & 5 & 3 \end{array} \Rightarrow -1(0) + 2 = 2$$

$$\begin{array}{ccc} & 1 & 1 \\ 0 > & -1 & (1.2) & (1.5) & 3 \end{array} \Rightarrow -1(2) + 5 = 3$$

$$\begin{array}{ccc} & 1 & 1 \\ 0 > & 1 & 4 & 1 \\ & (-1.3) & (-1.5) & (1.3) \end{array} \Rightarrow -5 + 3 = -2$$

$$\begin{array}{ccc} & 1 & 4 & 1 \\ 0 > & 2 & 5 & (-1.3) & 1 \\ & 1 & 1 \end{array} \Rightarrow -2 + (0) = -3$$

$$\begin{array}{ccc} & 1 & 1 & 4 & 1 \\ 0 > & -1 & (1.1) & 1 & 1 \\ & 1 & (1.2) & 5 & 3 \end{array} \Rightarrow 1(1) + 1(2) = 3$$



$$\Rightarrow \begin{matrix} (-1.1) & (1.4) & 1 \\ (1.2) & (1.5) & 3 \end{matrix} \Rightarrow -1+4+2+5=10$$

$$\Rightarrow \begin{matrix} 1 & (-1.4) & (1.1) \\ 2 & (1.5) & (1.3) \end{matrix} \Rightarrow -4+1+5+3=5$$

$$\Rightarrow \begin{matrix} 1 & 4 & (-1.1) & 1 \\ 2 & 5 & (1.3) & 1 \end{matrix} \Rightarrow -1+3+0+0=2$$

$$\Rightarrow \begin{matrix} -1 & 1 \\ 1 & (1.1) & 4 & 1 \\ 2 & 5 & 3 \end{matrix} \Rightarrow 1$$

$$\Rightarrow \begin{matrix} -1 & 1 \\ (1.1) & (1.4) & 1 \\ 2 & 5 & 3 \end{matrix} \Rightarrow 1+4=5$$

$$\Rightarrow \begin{matrix} -1 & 1 \\ 1 & (-1.4) & (1.1) \\ 2 & 5 & 3 \end{matrix} \Rightarrow 4+1=5$$

$$\Rightarrow \begin{matrix} -1 & 1 \\ 1 & 4 & (1.1) & 1 \\ 2 & 5 & 3 \end{matrix} \Rightarrow 4$$

$$g(n, m, i) \Rightarrow \begin{array}{c|cccc} & 1 & 5 & 5 & 1 \\ & 3 & 10 & 5 & 2 \\ & 2 & 3 & -2 & -3 \end{array}$$