

# Tugas Pemrosesan Sinyal dan Optimisasi

Nama : Lazuardi Raihan

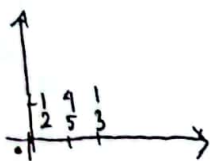
NRP : 5009201006

Kelas : D

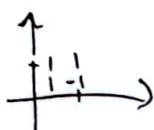
## Latihan Soal Konvolusi 2D

Diberikan

$x(n_1, n_2)$



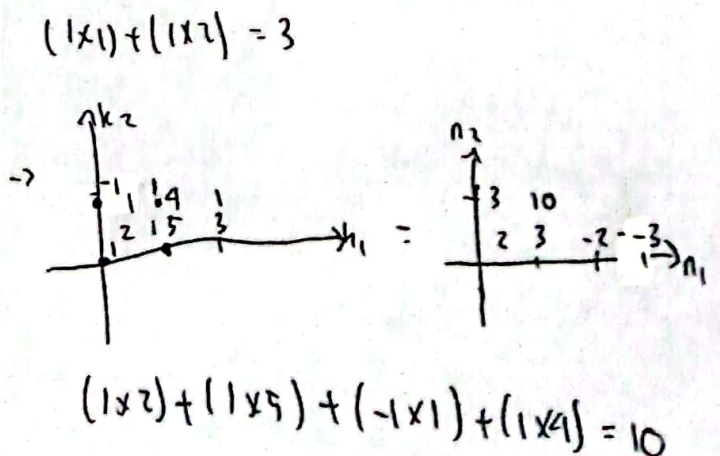
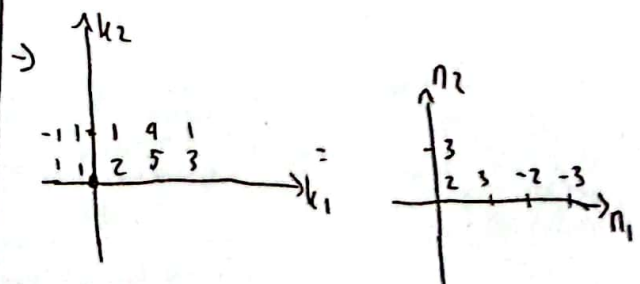
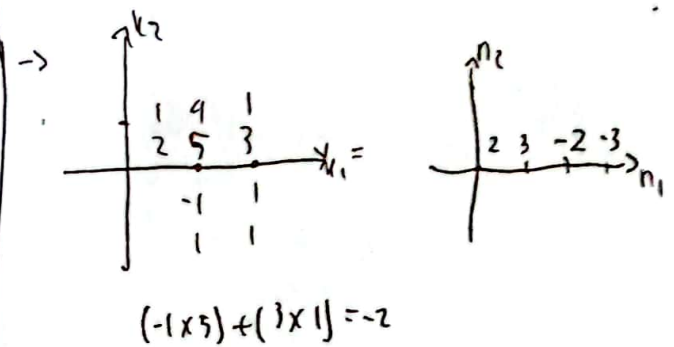
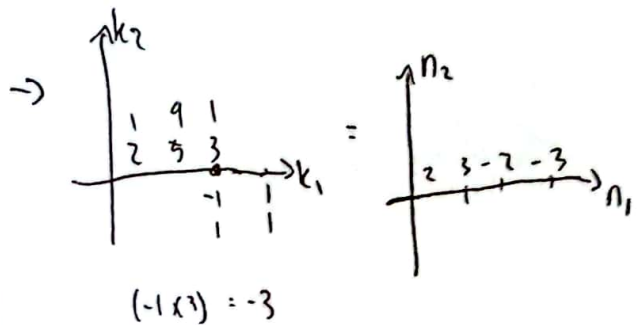
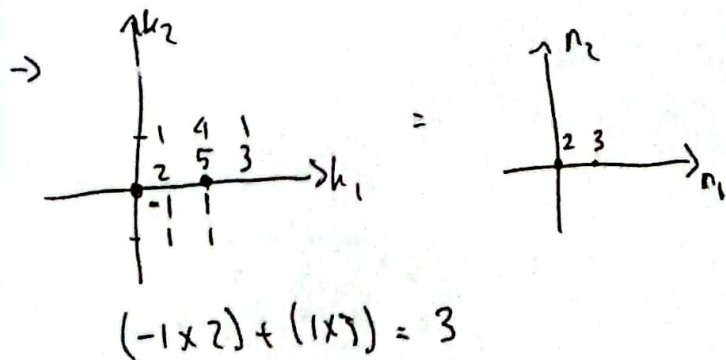
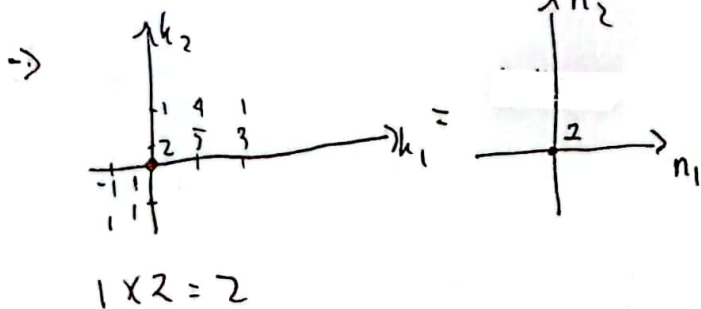
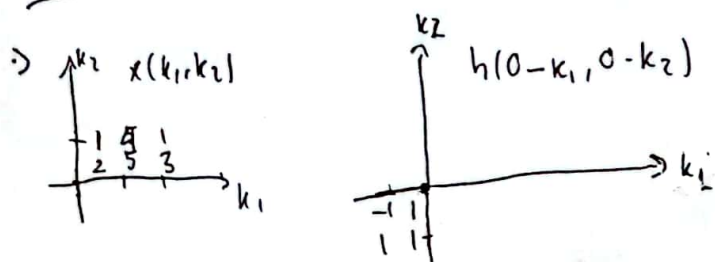
$h(n_1, n_2)$

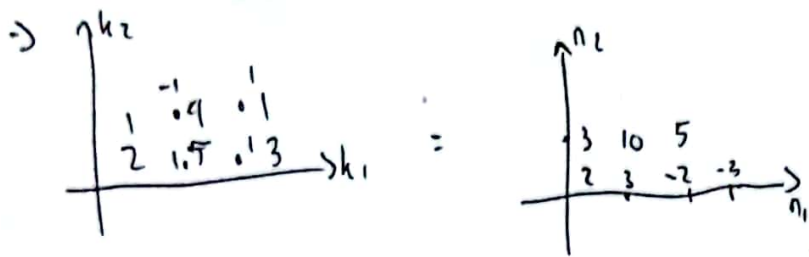


$**$

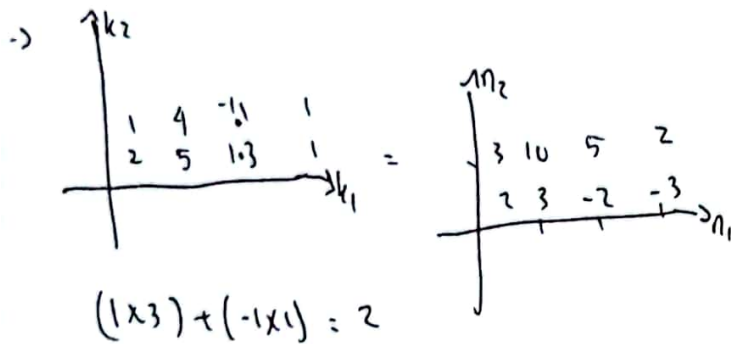
Konvolusikan Sinyal diatas

Solusi:

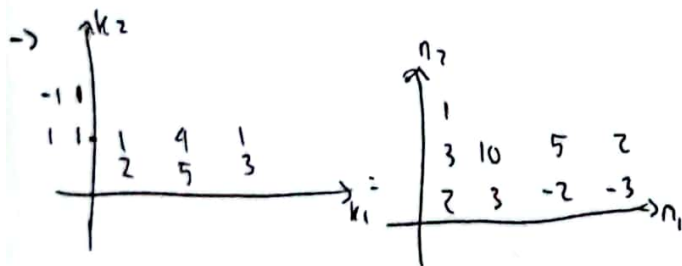




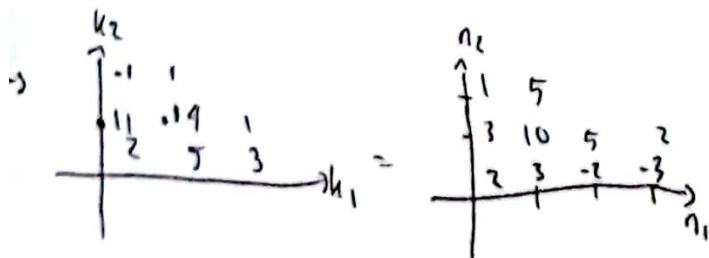
$$(1 \times 5) + (1 \times 3) + (-1 \times 9) + (1 \times 1) = 5$$



$$(1 \times 3) + (-1 \times 1) = 2$$



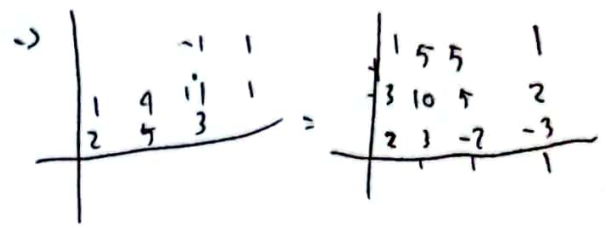
$$(1 \times 1)$$



$$(1 \times 1) + (1 \times 4) = 5$$



$$(1 \times 4) + (1 \times 1) = 5$$



$$(1 \times 1) = 1$$

Hasil Konvolusi

