Nama: Muhammad Rizaldi Nur

Nim : 2109076017

UTS\_Pengolahan Citra Digital

## Soal 1

Citra

4	4	3	5	4
6 5	6	5	5	2
5	6	6	6	2
6	7	5	5	3
3	5	2	4	4

Mask

0	-1	0
-1	4	-1
0	-1	0

## Perkalian Baris pertama

$$\begin{aligned} 6 = & (4*0) + (4*(-1)) + (3*0) + (6*(-1)) + (6*4) + (5*(-1)) + (5*0) + (6*(-1)) + (6*0) \\ = 3 \\ 5 = & (4*0) + (3*(-1)) + (5*0) + (6*(-1)) + (5*4) + (5*(-1)) + (6*0) + (6*(-1)) + (6*0) \\ = 0 \\ 5 = & (3*0) + (5*(-1)) + (4*0) + (5*(-1)) + (5*4) + (2*(-1)) + (6*0) + (6*(-1)) + (2*0) \end{aligned}$$

4	4	3	5	4
6 5 6 3	6	5	5	2
5	6 7	5 6 5	5	2 3
6	7	5	5	3
3	5	2	4	4

= 2

#### Perkalian Baris Kedua

$$6 = (6*0) + (6*(-1)) + (5*0) + (5*(-1)) + (6*4) + (6*(-1)) + (6*0) + (7*(-1)) + (5*0)$$

$$= 0$$

$$6 = (6*0) + (5*(-1)) + (5*0) + (6*(-1)) + (6*4) + (6*(-1)) + (7*0) + (5*(-1)) + (5*0)$$

$$= 2$$

$$6 = (5*0) + (5*(-1)) + (2*0) + (6*(-1)) + (6*4) + (2*(-1)) + (5*0) + (5*(-1)) + (3*0)$$
$$= 6$$

## Perkalian baris ketiga

$$7 = (5*0) + (6*(-1)) + (6*0) + (6*(-1)) + (7*4) + (5*(-1)) + (3*0) + (5*(-1)) + (2*0)$$

$$= 6$$

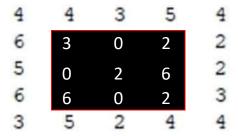
$$5 = (6*0) + (6*(-1)) + (6*0) + (7*(-1)) + (5*4) + (5*(-1)) + (5*0) + (2*(-1)) + (4*0)$$

$$= 0$$

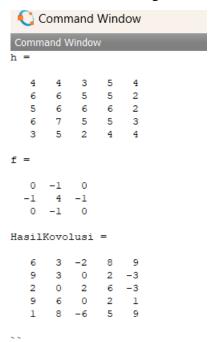
$$5 = (6*0) + (6*(-1)) + (2*0) + (5*(-1)) + (5*4) + (3*(-1)) + (2*0) + (4*(-1)) + (4*0)$$

$$= 2$$

## Maka Hasilnya adalah:



# Hasil Pembuktian dengan Octave:



#### Hasil Konvolusi Gambar

