



**TUGAS 3**

**HISTOGRAM CITRA**

**Muh Alfian Rizky Busra**

**(200209501006)**

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**PENDIDIKAN TEKNIK INFORMATIKA DAN KOMPUTER**

**TEKNIK INFORMATIKA DAN KOMPUTER**

**UNIVERSITAS NEGERI MAKASSAR**

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1. Buat histogram citra 3 bit dibawah ini

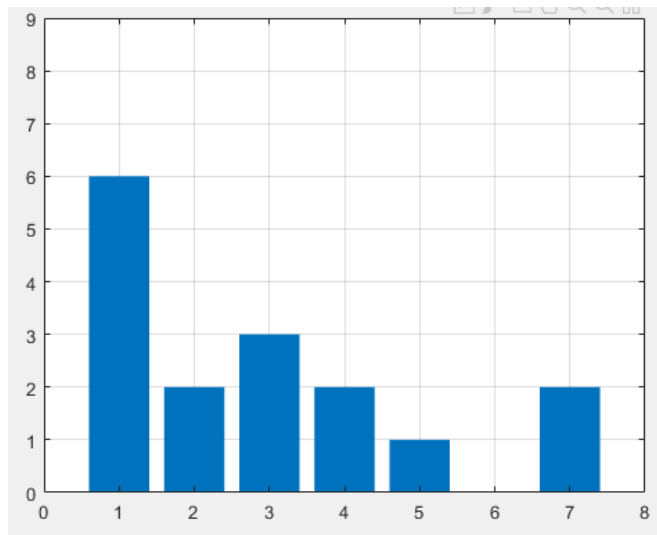
1	3	4	5
1	2	1	1
3	3	4	7
2	1	1	7

**Jawab :**

- a. Code Program

```
Histogram.m  x +
1 Citra_3_bit = [1 3 4 5; 1 2 1 1; 3 3 4 7; 2 1 1 7];
2
3 %Histogram
4 [n m] = size(Citra_3_bit);
5 H = zeros(1,256);
6 for x = 1 : n
7     for y = 1 : m
8         ii = Citra_3_bit(x,y);
9         H(ii+1) = H(ii+1) + 1;
10    end
11 end
12 figure(1)
13 bar(0:255,H);
14 axis([0 8 0 9])
15 grid on
```

- b. Hasil



2. Cari distribusi komulatifnya (grafiknya ditampilkan)

**Jawab :**

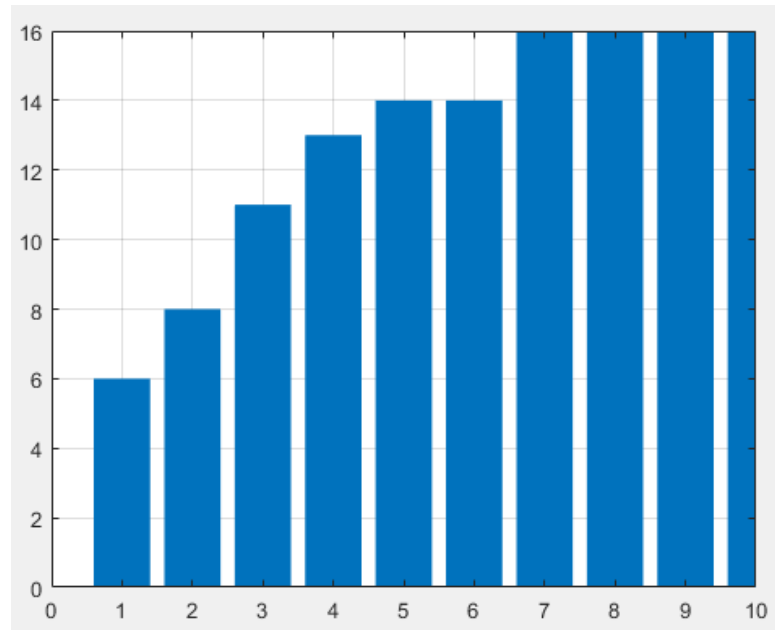
- a. Code Program

```

17 %Distribusi Komulatif
18 for w = 1 : 256
19     c(w) = sum(H(1:w));
20 end
21 figure(2)
22 bar(0:255,c)
23 axis ([0 10 0 m*n])
24 grid on

```

b. Hasil



- Lakukan proses histogram equalisasi (tuliskan matriks citra hasil equalisasinya)

**Jawab :**

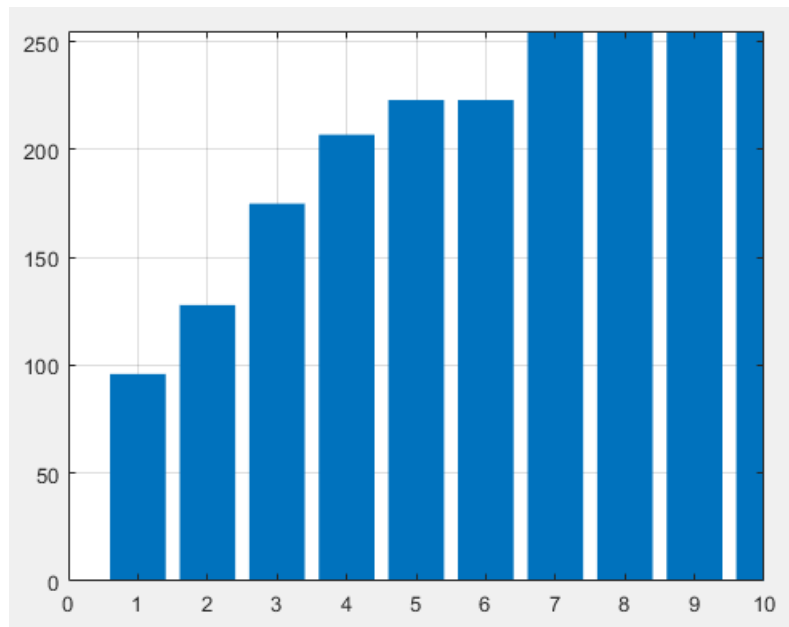
a. Code Program

```

26 %Histogram Equalitation
27 for k = 1 : 256
28     wb(k) = round (c(k)*255/(m*n));
29 end
30 figure(3)
31 bar(0:255,wb)
32 axis ([0 10 0 255])
33 grid on
34
35 c = Citra_3_bit;
36 [n m] = size(c);
37
38 for x = 1 : n
39     for y = 1 : m
40         ii = c(x,y);
41         c(x,y) = wb(ii+1);
42     end
43 end

```

b. Hasil



c. Matriks Citra Hasil Equalisasi

96	175	207	223
96	128	96	96
175	175	207	255
128	96	96	255

```
>> c = Citra_3_bit;
[n m] = size(c);

for x = 1 : n
    for y = 1 : m
        ii = c(x,y);
        c(x,y) = wb(ii+1);
    end
end
>> c

c =

    96    175    207    223
    96    128     96     96
   175    175    207    255
   128     96     96    255
```