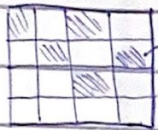


PAULA SNOJAN

## KAPACITET I HISTOGRAM SLIKE

### KAPACITET SLIKE:



$$\begin{aligned} 8 \text{ bit} &= 1 \text{ B} \\ \Rightarrow 4 \times 4 &= 16 \text{ p} = 16 \text{ B} \end{aligned}$$

8-BITNA ↓

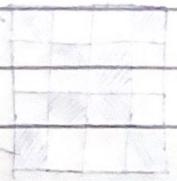
$$400 \times 600 [\text{P}] = 240\,000 \text{ p} = 240\,000 \text{ B}$$

$$= 240\,000 \text{ B} : 1024$$

$$= 234,4 \text{ KB} //$$

$$1 \text{ K} = 1024$$

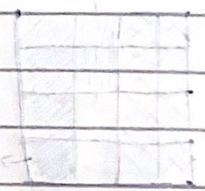
$$= 2^{10}$$



1-BITNA ↓

$$400 \times 600 [\text{P}] = 240\,000 \text{ b} : 8 = 30\,000 \text{ B} //$$

$$30\,000 \text{ B} : 1024 = 29,3 \text{ KB} //$$



RGB ↓  
 $8 \text{ b} \quad 8 \text{ b} \quad 8 \text{ b} = 24 \text{ b}$

CMYK ↓  
 $8 \text{ b} \quad 8 \text{ b} \quad 8 \text{ b} \quad 8 \text{ b}$

$$400 \times 600 [\text{P}]$$

$$234,4 \text{ KB} \cdot 4 = 937,6 \text{ KB} //$$

$$234,4 \text{ KB} \cdot 3 = 703,2 \text{ KB} //$$

- Monokromatska slika (8b) 4x manja po kapacitetu od CMYK slike i 3x manja od RGB slike
- Jednobitna slika je 8x manja po kapacitetu od RGB slike

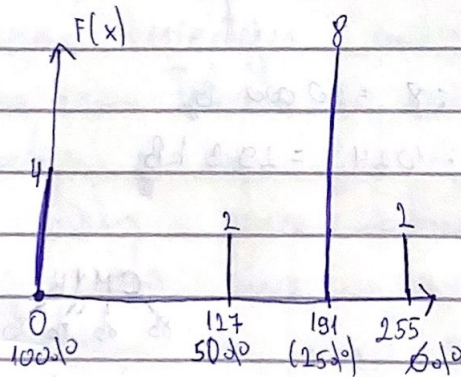
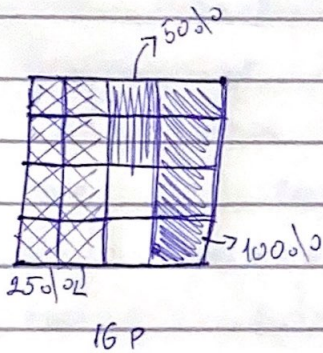
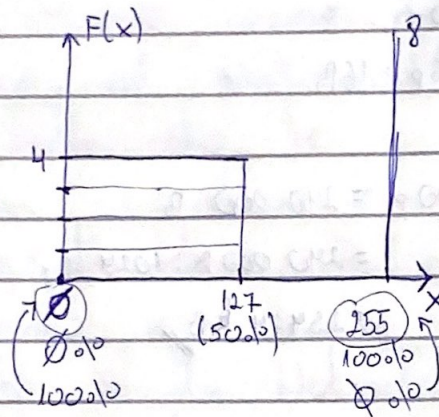
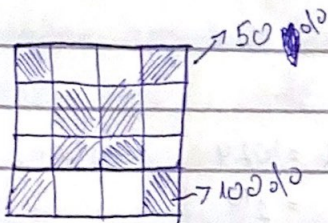


# HISTOGRAM SLIKE

- Normalizirana funkcija distribucije sivih razina slike

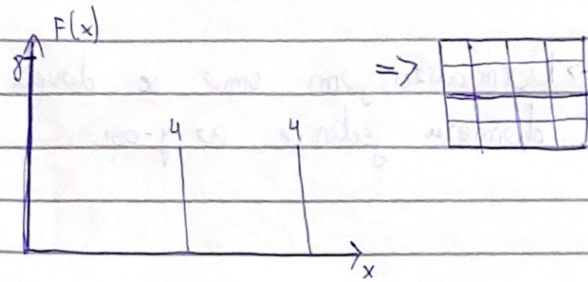
## FUNKCIJA DISTRIBUCIJE SIVIH RAZINA

8-bitna

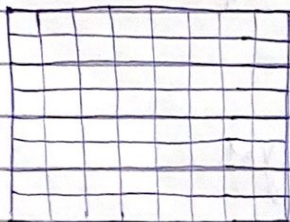


$$F(x) = \text{BROJ PİKSELA NA SLICI}$$

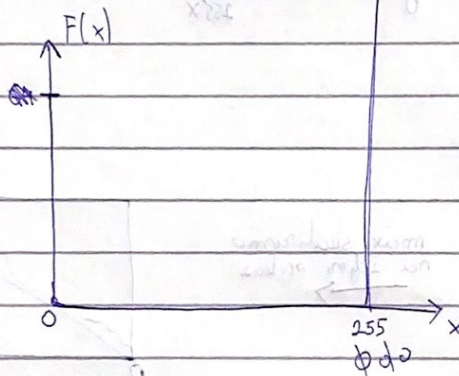
# HISTOGRAM SLIKE



64 P



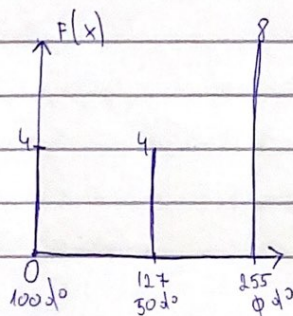
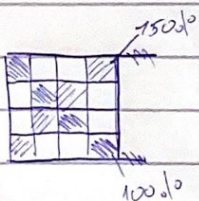
- potpuno bijela slika



- Slika 4x4 bi imala grad sa visinom 16.

## HISTOGRAM SLIKE

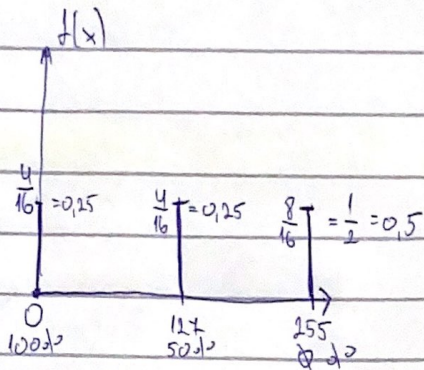
$$f(x) = \sum_{x=0}^{255} F(x)$$



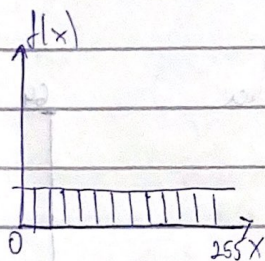
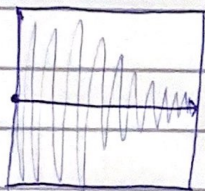
$$\sum_{x=0}^{255} F(x) = 16$$



## ⇒ NORMALIZACIJA



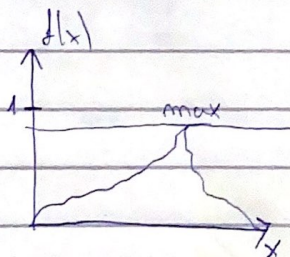
→ Normalizacijom smo se doveli u domenu jedinice po y-osi.



$$\sum_{x=0}^{255} f(x) = 1$$

$$255 \cdot V = 1$$

↓  
255



max. skaliramo na željeni prikaz

