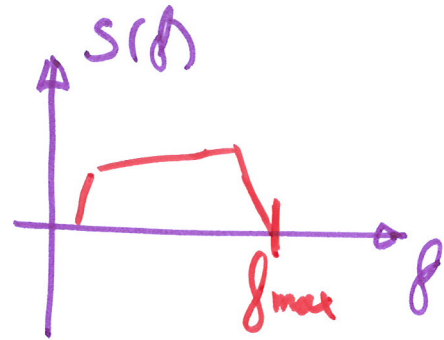
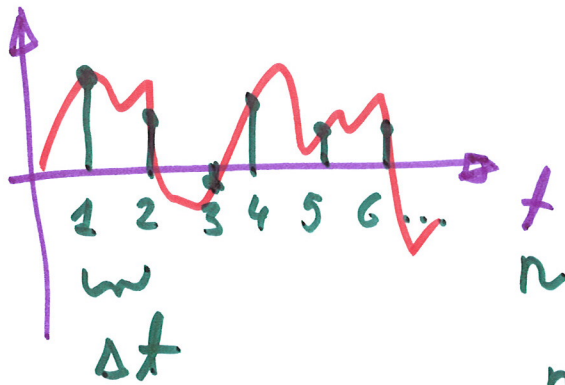


03.04.18

6



$$f = \frac{1}{T} \quad f_s = \frac{1}{\Delta t}$$

$$n \equiv n \cdot \Delta t$$

$$\Delta t \leq \frac{1}{2 \cdot f_{\max}}$$

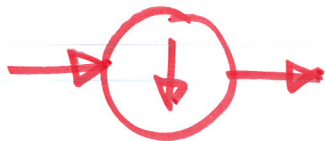
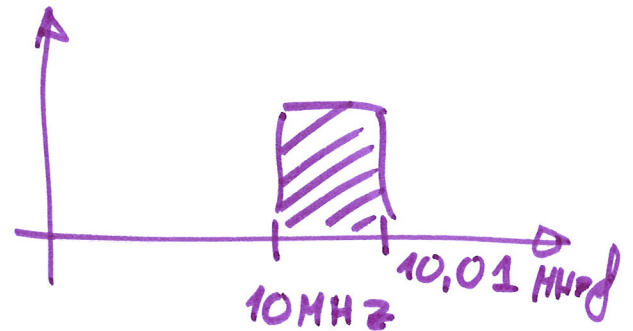
$$f_s \geq 2 \cdot f_{\max}$$

300 ... 3200 Hz

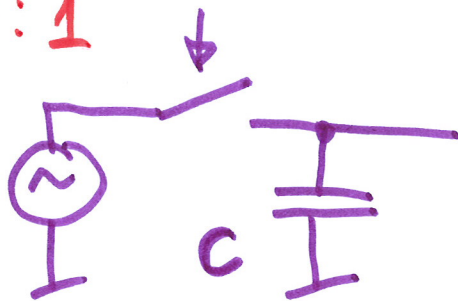
$$f_{\max} = 3.2 \text{ kHz}$$

$$f_s = 8,000 \text{ kHz}$$

DETSIMEERIMINE



N:1



$$f_s \geq 2 \cdot B \quad \text{ALADISKREETIMINE}$$

$$f_{\max} = 0,2 \text{ Hz}$$

$$f_s = 1 \text{ Hz}$$

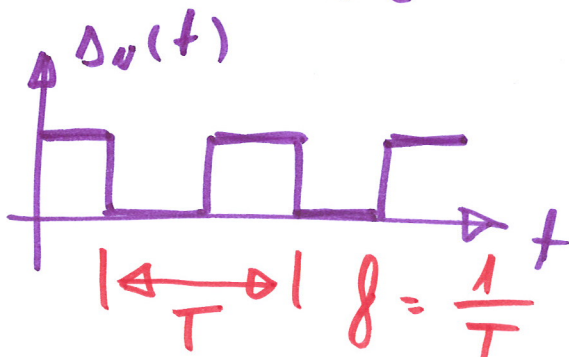
$$1 \geq 2 \cdot 0,2$$

$$f_{\max} = 1,25$$

$$1 \geq 2 \cdot 1,25?$$

$$1 \geq 2,5?$$

• KVANTIMINE



$$q = 1 \text{ mm} \quad \pm \frac{q}{2} \pm 0,5 \text{ mm}$$

$$\log_2(M) = \log_2(201) = \underline{\underline{7,65}} \approx 8 \text{ bits}$$

$$\Pi = 8000 \cdot 8 = 64 \text{ kbit/s}$$

$$f_s = 41 \text{ kHz}$$

$$n = 2$$

$$R_B = 16 \text{ bits}$$

$$\Pi = 2 \cdot 41000 \cdot 16 = 1,312 \text{ Mbit/s} \approx 164 \text{ kB/s}$$

$$\frac{(10^{-3})^2}{12} = \frac{10^{-6}}{12} \approx 10^{-7}$$



0 ... 500

256

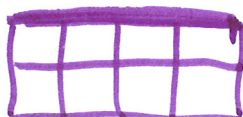
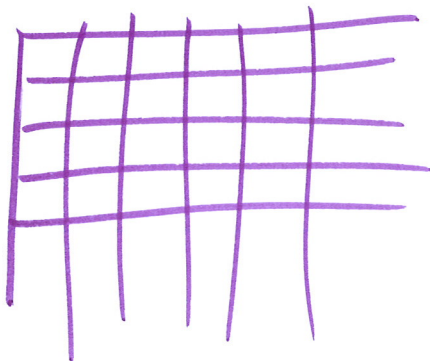
$$1920 \times 1080 = 2,073,600 \cdot 3 =$$

$$= 6,2208 \text{ MB}$$

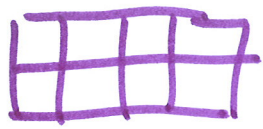
$$150 \text{ MB/s}$$

$$1200 \text{ Mbit/s}$$

$$J = 4$$



8



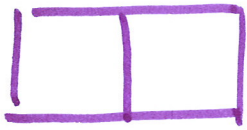
Y

8 ~~bit~~ piket

24 B

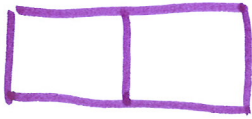


12 B



C<sub>B</sub>

2 piket



C<sub>R</sub>

2 piket

$$\log a^b = b \cdot \log a$$

$$P = \frac{U^2}{R}$$

$$\frac{P_1}{P_2} = \frac{U_1^2}{U_2^2} = \left( \frac{U_1}{U_2} \right)^2$$

$$10 \cdot \log \left( \frac{U_1}{U_2} \right)^2 = 20 \log \frac{U_1}{U_2}$$



MODAALNE DISPERSION