1. konstansra vonatkozó, normális eloszlású zajjal fedett, független mintavétel, ha a szórás előre nem ismert

(1) (1) [2]

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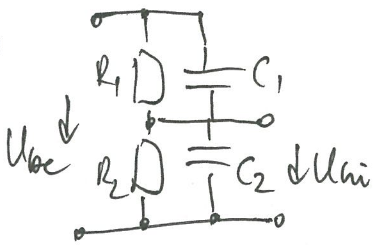
2. 

ha $R_1C_1 = R_2C_2$,

akkor $\frac{U_{ki}}{U_{be}} = \frac{R_2}{R_1+R_2}$ (1)

$Z_{be}(s) = \frac{R_1+R_2}{1+s\tau}$

$\tau = R_1C_1 = R_2C_2$ (1)

[2]

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3. $U_x = \frac{U_p}{\sqrt{3}}$, $U_n^2 = \sigma^2$ $SNR = 10\lg\left(\frac{U_x^2}{U_n^2}\right) = 30\,dB$ [1]

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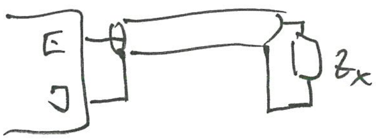
4. 

[1]

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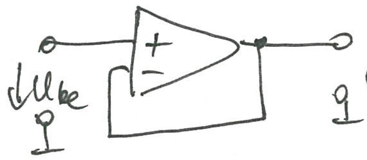
5. 

$U_{ki} = U_{be}$, $A = 1$

$R_{be} \approx \infty$, $R_{ki} \approx 0$ terhelés leválasztására alkalmas [1]

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6. $f_x = \pm f_m \pm k \cdot f_s$, $k = 0, 1, 2, \ldots$ 250 Hz, 19750 Hz, 20250 Hz, ... [1]

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7. $\Delta f = \frac{f_s}{N} = 12\,Hz$ osztópontok: .... 432, 444, 456, ... Hz

444 Hz-hez van közelebb, ennyinek mérjük.

[$f_s - f_x$-en is van csúcs, ezt 9556 Hz-nek mérjük.] [1]

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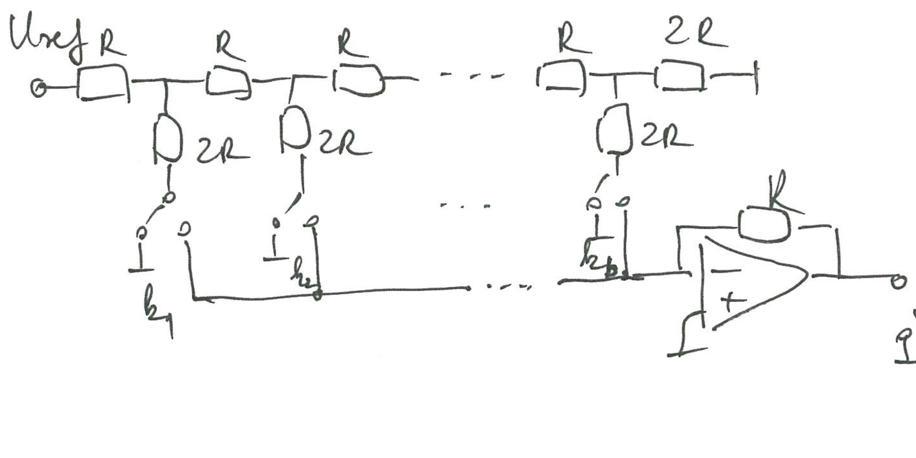
8. 

$k_i = \begin{cases} 0, \text{ ha } \perp \\ 1, \text{ ha } \rightarrow \triangleright \end{cases}$

$U_{ki} = -\sum_{i=1}^{b} k_i \frac{U_{ref}}{2^i}$ [1]