Bsp 1

1) RESONANZFREQUENZ : $\omega_1 = \sqrt{\dfrac{1}{L_1 C_1}} = \underline{10^5 \text{ Hz}}$

$\omega_2 = \sqrt{\dfrac{1}{L_2 C_2}} = \underline{10^6 \text{ Hz}}$

$\leadsto$ GÜTE : $G_1 = R\sqrt{\dfrac{C_1}{L_1}} = \underline{\underline{10}}$

$G_2 = R\sqrt{\dfrac{C_2}{L_2}} = \underline{\underline{10}}$

2) $\leadsto$ IMPEDANZEN : $\underline{Z}_1 = \dfrac{1}{\underline{y}_1} = \dfrac{1}{\dfrac{1}{R} + \dfrac{1}{j\omega L_1} + j\omega C_1} = \dfrac{j\omega L_1 R}{j\omega L_1 - \omega^2 C_1 L_1 R + R}$

$\underline{Z}_2 = [\text{Analog}] = \dfrac{j\omega L_2 R}{j\omega L_2 - \omega^2 C_2 L_2 R + R}$

- **Gegeben R = 1kΩ, L_1 = 1mH, L_2 = 0.1 mH, C_1 = 100nF, C_2 = 10nF**

$\underline{Z}_{tot} = \underline{Z}_1 \quad \underline{Z}_2 \qquad \dfrac{}{j\omega L_1 - \omega^2 C_1 L_1 R + R} \qquad \dfrac{}{j\omega L_2 - \omega^2 C_2 L_2 R + R}$

$= \dots$

3) GRAPHISCHER TR $\longrightarrow$ SICHER NICHT VON HAND ...