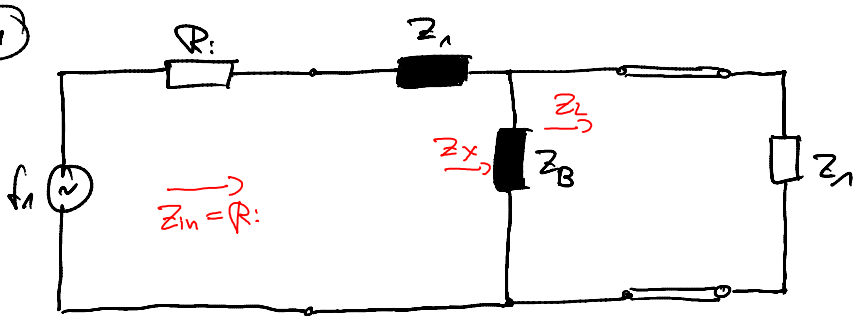
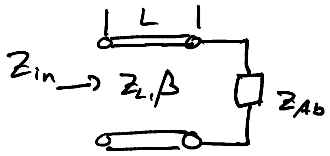
3.3.1 $\frac{L_2}{\lambda_2} = \frac{1}{4}$ (an den Klemmen B entsteht ein Kurzschluss für $f = f_2$)

3.3.2 $\frac{L_2}{\lambda_1} = \frac{L_2}{\lambda_2} \cdot \frac{\lambda_2}{\lambda_1} = \frac{L_2}{\lambda_2} \cdot \frac{f_1}{f_2} = \frac{1}{4} \cdot \frac{1}{2} = \frac{1}{8}$

ESB: (f_1)





$$Z_{in} = \frac{Z_{Ab} + j Z_L \tan(\beta L)}{1 + j \frac{Z_{Ab}}{Z_L} \tan(\beta L)}$$

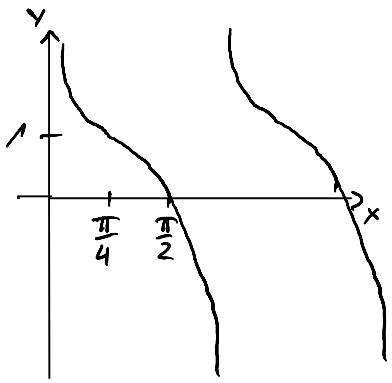
$$Z_B = -j Z_L \cot(\beta L_2)$$

$$Z_B(f_2) = -j Z_L \cot\left(\frac{2\pi}{\lambda_2} L_2\right) = 0$$

$$Z_B(f_1) = -j Z_L \cot\left(\frac{2\pi}{\lambda_1} L_2\right) = -j Z_L$$

$$r_B(f_2) = -1$$

$$r_B(f_1) = -j$$



1.) $R_N = Z_L$

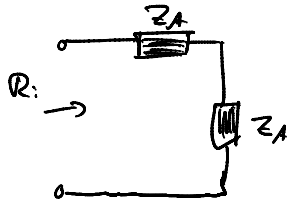
2.) R: einzeichnen (START)
$\frac{}{R_N}$

3.) $\frac{Z_A}{R_N}$ einzeichnen

4.) Z → Y

5.) $Y_B \cdot R_N = +j$ abziehen

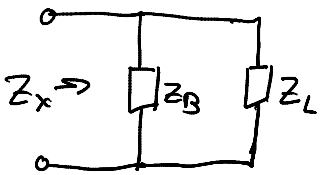
6.) Y → Z ⇒ $\frac{Z_C}{Z_L}$



$$\frac{Z_x}{R_N} = \frac{R:}{R_N} - \frac{Z_A}{R_N}$$

$$Z_A = -j Z_L \cot(\beta_1 L_1)$$

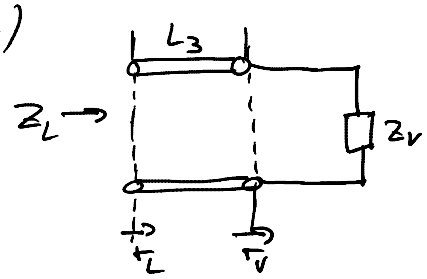
$0 \ldots \infty$
> 0



$$Y_C R_N = Y_x R_N - Y_B R_N$$

3.3.4.)

7.)



$$r_V = r_L \cdot e^{+2j\beta_1 L_3}$$