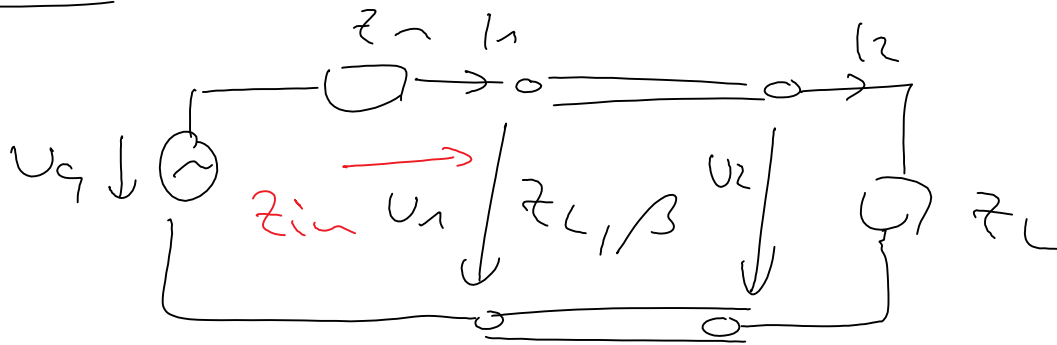


$$r = \frac{z - 1}{z + 1}$$

$$z = \frac{z}{z_L}$$

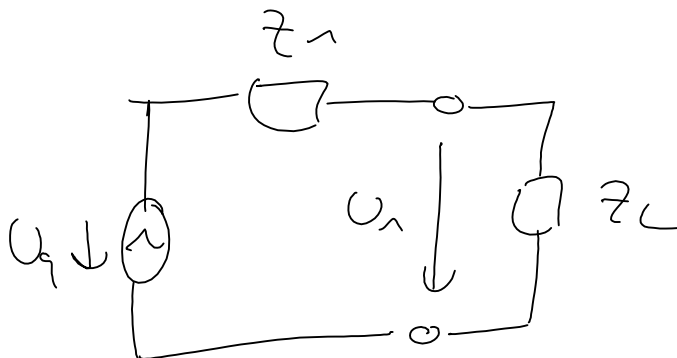
A 2

2.1.1



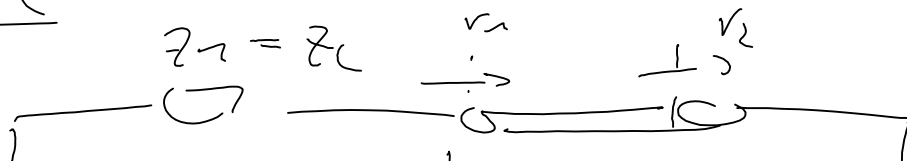
Da am Ende  $z_2 = z_L$  gilt entsteht  
keine Rücklaufende Welle

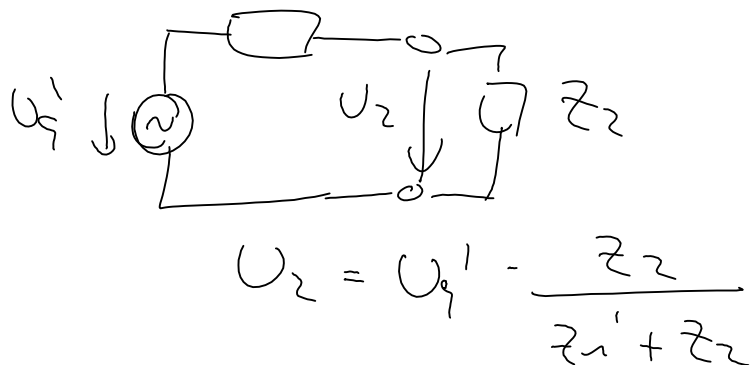
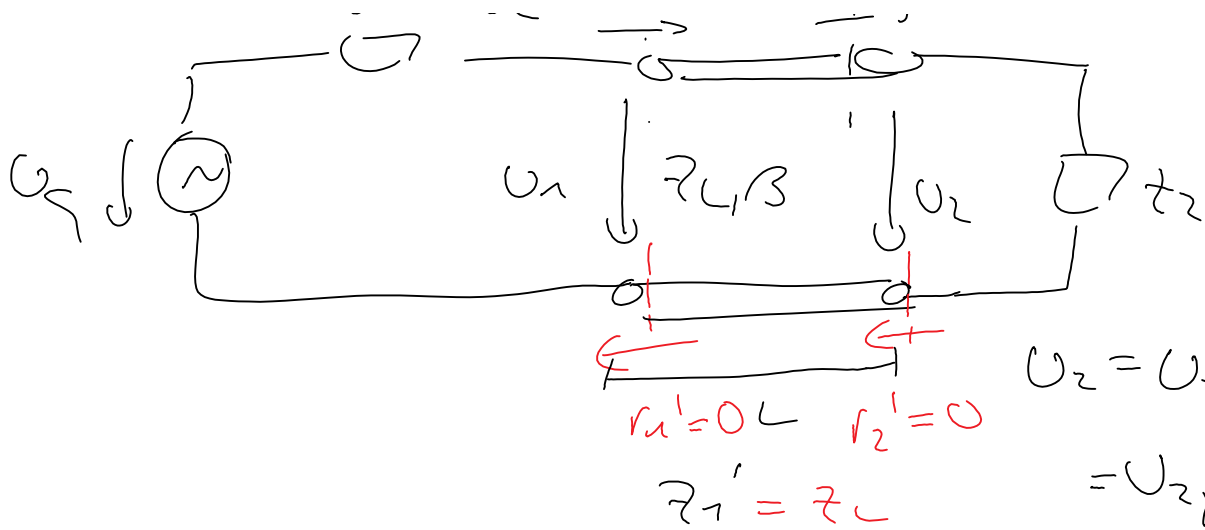
$$Z_{in} = \frac{U_1}{I_1} = z_L$$



$$U_1 = U_g \cdot \frac{z_L}{z_1 + z_L}$$

2.1.2





$$r_2' = \frac{Z_1' - Z_L}{Z_1' + Z_L} = 0$$

$$\Rightarrow Z_1' = Z_L$$

$$U_{2p} = U_{1p} e^{-j\beta L}$$

$$U_{1p} = \frac{U_g}{2}$$

gilt immer, wenn  
 $Z_i = Z_L$  ist

$$\text{Somit } U_{2p} = \frac{U_g}{2} e^{-j\beta L} = \frac{U_{g'}}{2}$$

$$U_2 = U_1 e^{-j\beta L} \cdot \frac{Z_2}{Z_1 + Z_2}$$