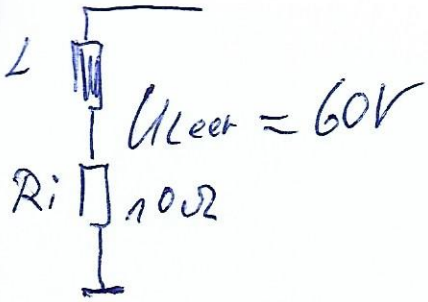
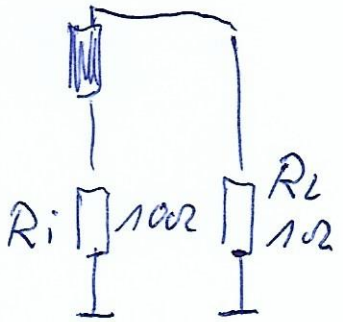


$J = 0 \quad P = 0$

Kurzschlussleistung

$$J = \frac{U_{leer}}{R_i + 0} = \frac{60V}{10\Omega} = 6A$$

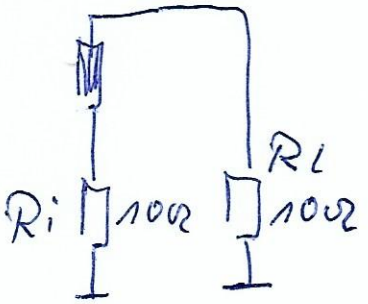
$$P_{Ri} = J^2 \cdot R_i = 36 \cdot 10\Omega = \underline{\underline{360W}}$$



$$J = \frac{U_{leer}}{R_i + R_L} = \frac{60V}{10\Omega + 10\Omega} = 5{,}45A$$

$$P_{Ri} = J^2 \cdot R_i = 29{,}75 \cdot 10\Omega = 297{,}5W$$

$$P_L = J^2 \cdot R_L = 29{,}75 \cdot 10\Omega = 29{,}75W$$

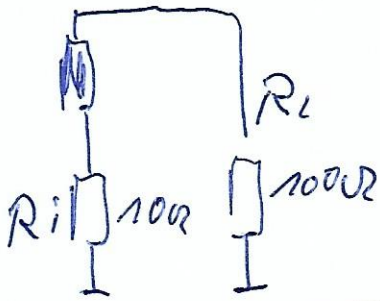


$$J = \frac{U_{leer}}{R_i + R_L} = \frac{60V}{10\Omega + 10\Omega} = 3A$$

Optimal

$$P_{Ri} = J^2 \cdot R_i = 9 \cdot 10\Omega = 90W$$

$$P_L = J^2 \cdot R_L = 9 \cdot 10\Omega = \underline{\underline{90W}}$$



$$J = \frac{U_{leer}}{R_i + R_L} = \frac{60V}{10\Omega + 100\Omega} = 0{,}545A$$

$$P_{Ri} = J^2 \cdot R_i = 0{,}2975 \cdot 10\Omega = 2{,}975W$$

$$P_L = J^2 \cdot R_L = 0{,}2975 \cdot 100\Omega = 29{,}75W$$

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nutzbare Leistung an R_L max 90W $\frac{1}{4}$

Kurzschlussleistung an R_i 360W