Laby 2

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Zad 1

$U = 59V$, $U_z = 75V$, $\# = 1 \frac{k\Omega}{V}$, $R_w = 1000\Omega$

$R_V = 1 \frac{k\Omega}{V} \cdot 75V = 75 k\Omega$

$\Delta_m E = -U \cdot \frac{R_w}{R_V} = -59V \cdot \frac{1000}{75\,000} = -0,786V \approx -0,8V$

$\Delta_u U = \frac{1 \cdot 75V}{100} = 0,75V$

$u_{rel}(U) = \frac{0,75V}{59V\sqrt{3}} \cdot 100\% = 0,7339\% \approx 0,8\%$

Zad 2

$U = 59V$, $U_z = 100V$, $R_w = 1M\Omega$, $R_V = 10M\Omega$

$\Delta_m E = -U \cdot \frac{R_w}{R_V} = -59V \cdot \frac{1}{10} = -5,9V \approx -6V$

$\delta_g U = 0,015\% + 0,005\% \cdot \frac{100}{59} = 0,1234\% \approx 0,13\%$

$u_{rel}(U) = \frac{0,1234\%}{\sqrt{3}} = 0,1135\% \approx 0,14\%$