

# aufgabe\_4.5.3

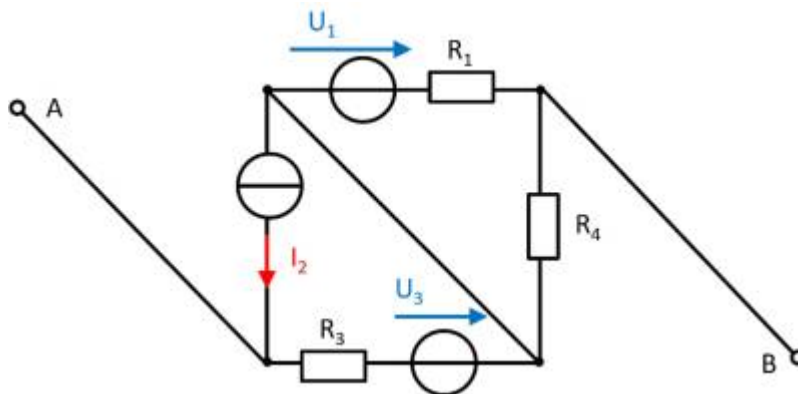
## Student Group

First Name	Surname	Matrikel Nr.

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**Exercise 4.5.3 -Variation: open circuit voltage via superposition (exam task, approx. 12% of a 60-minute exam, WS2020)**



A circuit is given with the following parameters

$$R_1 = 5 \, \Omega$$

$$U_1 = 2 \, \text{V}$$

$$I_2 = 1 \, \text{A}$$

$$R_3 = 20 \, \Omega$$

$$U_3 = 8 \, \text{V}$$

$$R_4 = 10 \, \Omega$$

Determine the open circuit voltage between A and B using the principle of superposition.

Endergebnis

$$\begin{aligned} U_{AB} &= 29,333... \, \text{V} \rightarrow 29,3 \, \text{V} \end{aligned}$$

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