

**G 36: 36.1**

$$R = 1,364 \Omega$$

**36.2**

$$R = 1,233 \Omega$$

**36.3**

$$R = 8,77 \Omega$$

**36.4**

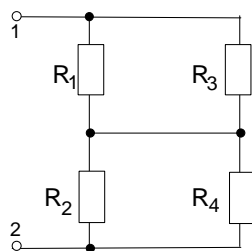
$$R = 29,54 \Omega$$

**36.5**

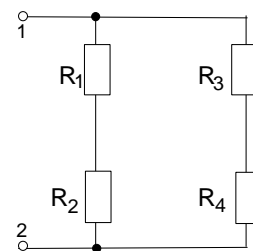
$$R_{A'A} = R_{B'B} = R_{C'C} = \frac{1}{2} R$$

$$R_{BC} = \frac{5}{12} R$$

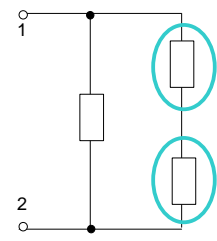
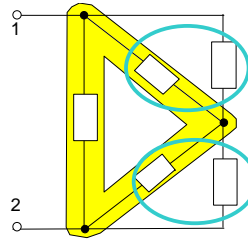
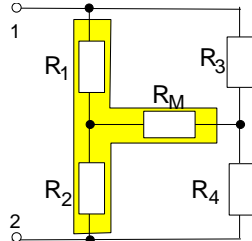
**G 37: 37.1**
Brücke abgeglichen
 $\Rightarrow$  Punkt a und b haben gleiches Potential und dürfen damit direkt verbunden werden ( $R_M=0$ ).

 $\Rightarrow$  Da der Brückenweig stromlos ist, kann  $R_M$  entfernt werden ( $R_M=\infty$ ).


$$R_e = (R_1 \parallel R_2) + (R_3 \parallel R_4)$$



$$R_e = (R_1 + R_2) \parallel (R_3 + R_4)$$

**37.2** Brücke NICHT abgeglichen

**37.3**

$$R_i = (R_1 \parallel R_2) + (R_3 \parallel R_4)$$

$$U_0 = U_q \left( \frac{R_4}{R_3 + R_4} - \frac{R_2}{R_1 + R_2} \right)$$

**G 38:**

$$U_1 = 0V$$

$$U_x = 0V$$

$$I_1 = 0A$$

$$I = 1A$$

**G 39:**

$$\frac{1}{R_i} = \sum_{k=1}^n \frac{1}{R_k}$$

$$I_k = \sum_{k=1}^n \frac{U_k}{R_k}$$

$$U_a = \frac{\sum_{k=1}^n \frac{U_k}{R_k}}{\sum_{k=1}^n \frac{1}{R_k}}$$

**G 40:**

**40.1** 
$$U_{AB} = 132,2V$$

$$I_{AB} = 0A$$

**40.2** 
$$U_{AB} = 0V$$

$$I_{AB} = 152,25A$$

**40.3** 
$$U_{AB} = 102,5V$$

$$I_{AB} = 34,18A$$

**40.4** Leistungsanpassung  $R_{AB} = R_i = 0,868 \Omega$   $I_{AB} = 76,0A$   $P = 5,02kW$