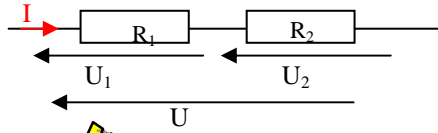


## حل التمرين 05

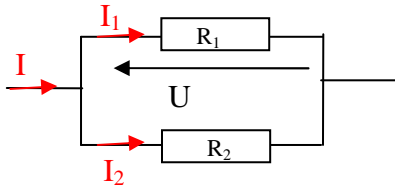


$$R_e = R_1 + R_2 \Rightarrow R_e = 100\Omega \quad .1.1$$

$$U = R_e I \Rightarrow I = \frac{U}{R_e} \quad .1.2$$

$$U_1 = R_1 I = R_1 \frac{U}{R_e} \Rightarrow U_1 = 49 \times \frac{10}{100} = 4,9V$$

$$U_2 = U - U_1 = 5,1V$$

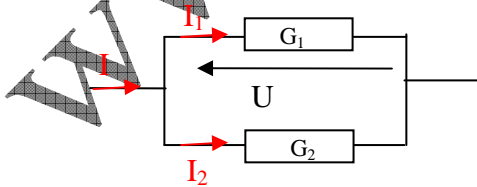


$$\frac{1}{R_e} = \frac{1}{R_1} + \frac{1}{R_2} \Rightarrow R_e = \frac{R_1 R_2}{R_1 + R_2} \quad .2.1$$

$$R_e = \frac{9 \times 13}{9 + 13} = 5,32\Omega$$

$$u = R_e I \Rightarrow I = \frac{U}{R_e} \Rightarrow I = \frac{20}{5,32} = 3,76A \quad .2.2$$

$$I_1 = \frac{U}{R_1} = \frac{20}{9} = 2,23A \Rightarrow I_2 = I - I_1 = 1,53A$$



$$\frac{1}{R_e} = \frac{1}{R_1} + \frac{1}{R_2} \Rightarrow G_e = G_1 + G_2 \quad .3.1$$

$$\Rightarrow G_e = 0,021 + 0,019 = 0,040S$$

$$R_e = \frac{1}{G_e} = \frac{1}{0,04} = 25\Omega$$

$$U = R_e I = 25 \times 200 \cdot 10^{-3} = 5V \quad .3.2$$

$$I_1 = G_1 U \Rightarrow I_1 = 0,021 \times 5 = 0,105A = 105mA$$

$$I_2 = I - I_1 = 95mA$$

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