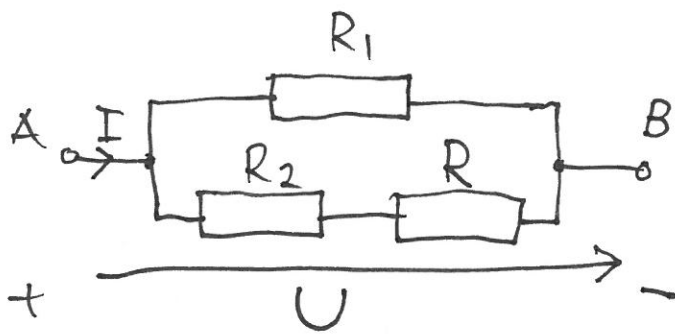


1-3)



$$R_1 = 20 \Omega$$

$$R_2 = 10 \Omega$$

$$U = 4 \text{ V}$$

$$I = 0.4 \text{ A}$$

$$U = R_{\text{tot}} \cdot I$$

$$R_{\text{tot}} = R_1 \parallel (R_2 + R) = \frac{R_1 \cdot (R_2 + R)}{R_1 + (R_2 + R)}$$

$$\Rightarrow U = \frac{R_1 \cdot (R_2 + R)}{R_1 + R_2 + R} \cdot I \Leftrightarrow U \cdot (R_1 + R_2 + R) = R_1 \cdot (R_2 + R) \cdot I$$

$$\Leftrightarrow U \cdot (R_1 + R_2) + U \cdot R = R_1 \cdot R_2 \cdot I + R_1 \cdot R \cdot I \Leftrightarrow$$

$$U \cdot (R_1 + R_2) - R_1 \cdot R_2 \cdot I = R \cdot (R_1 \cdot I - U)$$

$$\Leftrightarrow R = \frac{U \cdot (R_1 + R_2) - R_1 \cdot R_2 \cdot I}{R_1 \cdot I - U}$$

$$= \frac{4 \cdot (10 + 20) - 10 \cdot 20 \cdot 0.4}{20 \cdot 0.4 - 4} = \frac{120 - 80}{8 - 4} = \frac{40}{4} = 10 \Omega$$

$$\boxed{R = 10 \Omega}$$