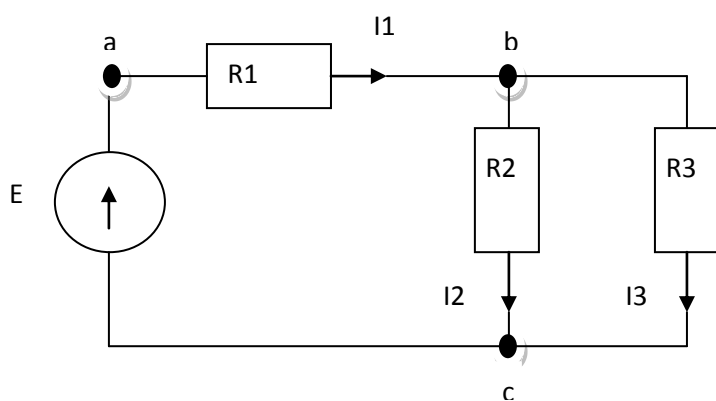


10. Определите напряжения U_{ab} , U_{bc} , U_{ac} схемы, если $E=6\text{В}$, $R_1=10\text{Ом}$, $R_2=R_3=40\text{Ом}$.



$$U_{ab} = I_{\text{общ}} \cdot R_1$$

$$U_{ac} = I_{\text{общ}} \cdot R_{\text{общ}}$$

$$U_{bc} = I_{\text{общ}} \cdot R_{23}$$

$$R_{23} = \frac{R_2 \cdot R_3}{R_2 + R_3} = \frac{40 \cdot 40}{80} = 20(\text{Ом})$$

$$R_{\text{общ}} = R_1 + R_{23} = 10 + 20 = 30(\text{Ом})$$

$$I_{\text{общ}} = \frac{E}{R_{\text{общ}}} = \frac{6}{30} = 0.2(\text{А})$$

$$U_{ab} = 0.2 \cdot 10 = 2(\text{В})$$

$$U_{ac} = 6(\text{В})$$

$$U_{bc} = 0.2 \cdot 20 = 4(\text{В})$$