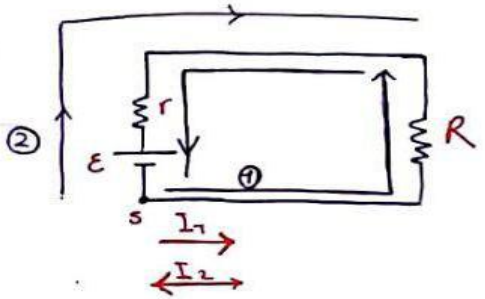
کانال یازدهم ریاضی

قاعده حلقه :



جهت حرکت ①

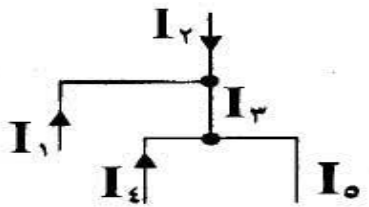
$$-I_1R - I_1r - \varepsilon = 0$$

$$+I_2R + I_2r - \varepsilon = 0$$

جهت حرکت ②

$$+\varepsilon + I_1r + I_1R = 0$$

$$+\varepsilon - I_2r - I_2R = 0$$

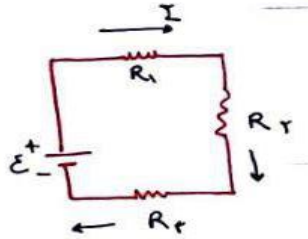


$I_1 + I_2 = I_3$

$I_3 + I_4 = I_5$

حانیه نجبائی

ترکیب مقاومت‌ها

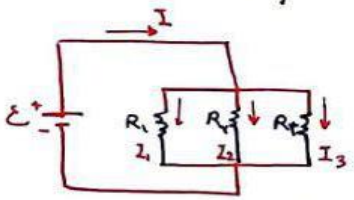


$$I = \frac{\varepsilon}{R_1 + R_2 + R_3}$$

$$R_{eq} = R_1 + R_2 + R_3$$

$$V = \varepsilon = V_1 + V_2 + V_3$$

$$R_{eq} = R_1 + R_2 + R_3 + \dots + R_n$$



$$I = I_1 + I_2 + I_3$$

$$V_1 = V_2 = V_3 = V$$

$$I_1 = \frac{V}{R_1} \qquad I_2 = \frac{V}{R_2} \qquad I_3 = \frac{V}{R_3}$$

$$\frac{1}{R_{eq}} = \frac{1}{R_1} + \frac{1}{R_2} + \frac{1}{R_3}$$

$$\frac{1}{R_{eq}} = \frac{1}{R_1} + \frac{1}{R_2} + \frac{1}{R_3} + \dots + \frac{1}{R_n}$$