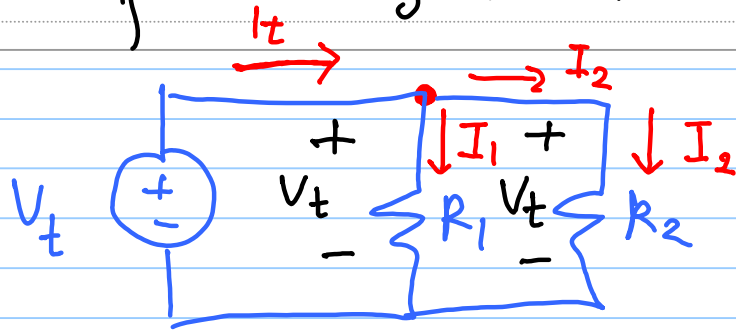


## Sifat Hubungan Paralel



1. Pada hubungan paralel dua resistor resistansi total sebanding dg

$$R_t = \frac{R_1 \cdot R_2}{R_1 + R_2}$$

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$$\sum I = 0$$

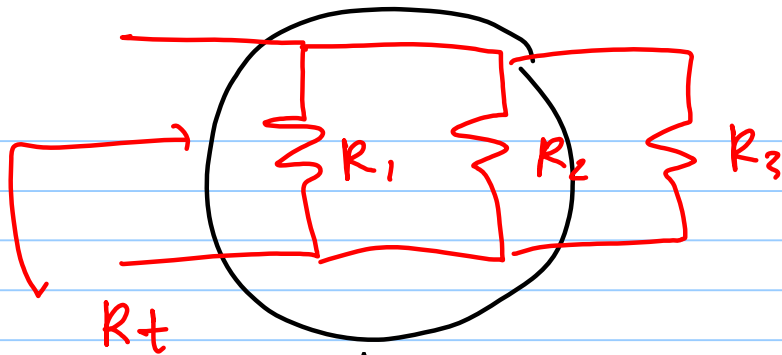
$$\sum I_{\text{masuk}} = \sum I_{\text{keluar}}$$

$$I_t = I_1 + I_2$$

$$\cancel{V_t} = \cancel{V_t} + \cancel{V_t}$$
$$\frac{V_t}{R_t} = \frac{V_t}{R_1} + \frac{V_t}{R_2}$$

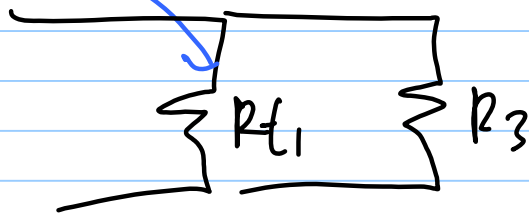
$$\boxed{\frac{1}{R_t} = \frac{1}{R_1} + \frac{1}{R_2}}$$

$$\Rightarrow \boxed{R_t = \frac{R_1 \cdot R_2}{R_1 + R_2}}$$



$$R_{t1} = \frac{R_1 \cdot R_2}{R_1 + R_2}$$

$$R_t = \frac{R_{t1} \cdot R_3}{R_{t1} + R_3}$$

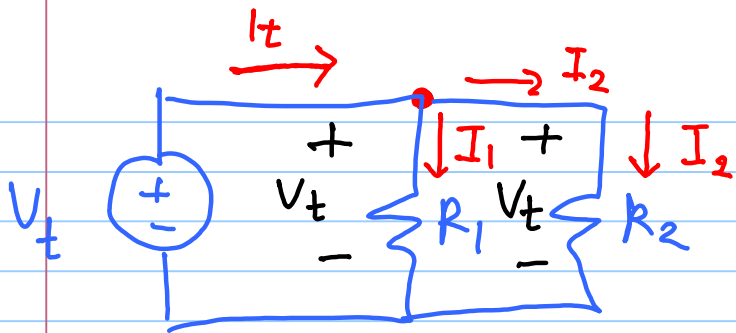


$$R_t = R_1$$

$$\checkmark \frac{1}{R_t} = \frac{1}{R_1} + \frac{1}{R_2} + \frac{1}{R_3}$$

$$R_t = \frac{R_1 \cdot R_2 \cdot R_3}{R_1 + R_2 + R_3} \quad \times$$

$$R_t = \frac{R_1 \cdot R_2 \cdot R_3}{R_1 R_2 + R_1 R_3 + R_2 R_3} \quad \checkmark$$



$$V_t = V_{t1}$$

$$I_t \cdot R_t = I_1 \cdot R_1 \implies$$

2. Pd hub. paralel berdasar pembagian arus

$$V_t = V_t = V_t$$

$$V_t = V_{t1} = V_{t2}$$

$$\Downarrow \quad \Downarrow$$

$$R_1 \quad R_2$$

$$I_1 = \frac{I_t \cdot R_t}{R_1} = \frac{R_t}{R_1} \times I_t$$

$$I_1 = \frac{\cancel{R_1} \cdot R_2}{R_1 + R_2} \times I_t = \frac{R_2}{R_1 + R_2} \times I_t$$