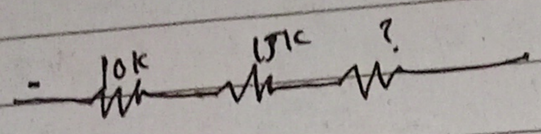
Rangkaian seri

1. $R_t = 30k$



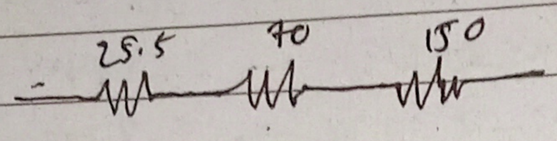

$V = 5V$

$R = ?$

$= 30k - 10k - 15 = 5k\Omega$

$= 5k\Omega$

2. $V = 15V$

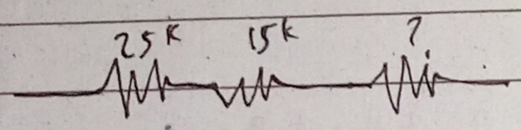



$R_t = ?$

$= 25.5k + 70 + 150 = 25,72\Omega$

$R_t = 25,72\Omega$

3.




$R_t = 100K$

$V = 5V$

$R_3 = ?$

$= 100k - 25k - 15k = 60k\Omega$

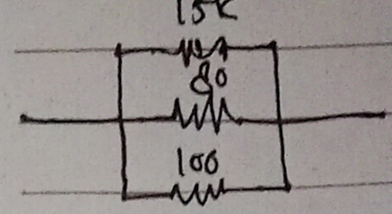
$I = ?$

$= \frac{5}{100k} = 0.00005\ A$

Nilai Resistor

| | | | | | | |
|---|---|---|---|---|---|---|
| 1. | Hijau | Oren | Hitam | perak | = 53 Ω | 10 % |
| 2. | kuning | Merah | Merah | emas | = 420 Ω | 5 % |
| 3 | Hijau | Hijau | oren | | = 55 kΩ | 20 % |
| 4 | oren | oren | kuning | perak | = 330 kΩ | 10% |
| 5 | Abu | hitam | Merah | emas | = 810 Ω | 5 % |
| 6. | Ungu | hijau | hitam | | = 75 Ω | 20 % |
| 7. | Ungu | Merah | Ungu | perak | = 720 Ω | 10 % |
| 8. | Hijau | hijau | hijau | | = 5.5MΩ | 20 % |
| 9. | Biru | hijau | oren | emas | = 65k Ω | 5 % |
| 10 | kuning | hijau | biru | | = 45 MΩ | 20 % |

1.

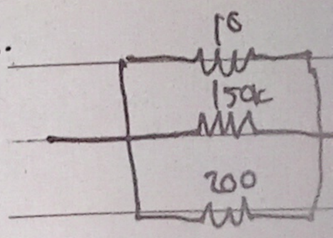



$\frac{1}{R_t} = \frac{1}{15} +$

$\frac{1}{R_t} = \frac{1}{15k} + 30$

$= \frac{451}{15k}$

2.




$R_t = ?$

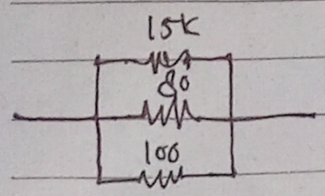
$R_t = \frac{1}{} +$

$R_t =$

No.

Date

Resistor Pararel

1. 

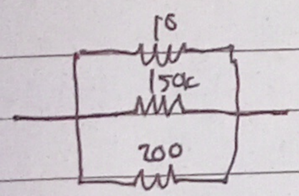

Rtp =

$$\frac{1}{Rt} = \frac{1}{15} + \frac{1}{50} + \frac{1}{100}$$

$$\frac{1}{Rt} = \frac{1}{15k} + \frac{300}{15k} + \frac{150}{15k}$$

$$= \frac{451}{15k} = 15k = 33,25\,\Omega$$

$$\frac{15k}{451} = 451$$

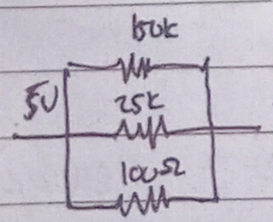
2. 


Rt = ?

$$Rt = \frac{1}{} + \frac{1}{150k} + \frac{1}{200}$$

$$Rt = \frac{1}{150k} + \frac{15k}{150k} + \frac{750}{150k}$$

$$= \frac{15751}{150k} = \frac{150k}{15751} = 9,52\,\Omega$$

3. 


$I_1 = ? = I = \frac{5}{150k} = 0.00003\,A$

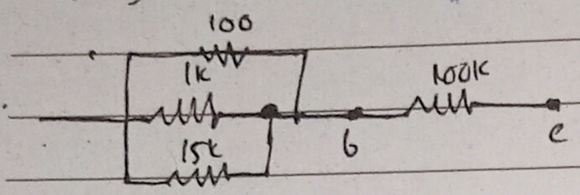
$I_2 = ? = I = \frac{5}{25k} = 0,0002\,A$

$I_3 = ? = I = \frac{5}{100} = 0,05\,A$

7 mm ruled X 35 lines

Rangkaian kombinasi

1.




Rt = ?

$$R_{tp} = \frac{1}{R_t} = \frac{1}{100} + \frac{1}{100} = \frac{1}{15000} =$$

$$= \frac{10 + 1 + 15}{1000} = \frac{26}{1000} = \frac{1000}{26} = 38.4$$

$R_{bp} = 38.4$

$R_b = 38.4 + 100k = 100,038\ \Omega$

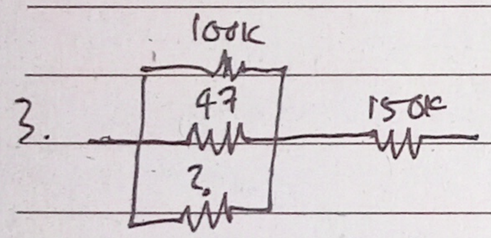
2. berapa $V_{bc}$ bila $I = 2A$

$V = I \cdot R$

$= 2 \cdot 100.038\ \Omega$

$= 200.076\ V = 2\ kV$

3.




bila $I = 2k$

$V = 15\ V$

$R_3 = ?$

1.
2. $R = \frac{V}{I} = \frac{15}{2} = 7,5\ \Omega$
3.
4. $\frac{1}{R_t} = \frac{1}{100k} + \frac{1}{47k} + \frac{1}{R_3}$
5.
6.
7. $\frac{1}{R_t} = \frac{100 + 47 + 18m}{100}$
8.
9.

$\frac{1}{R_t} = \frac{18.000.147}{1000}$

$\frac{1}{R_t} = \frac{1000}{18.000.147} = 0.000055$ 150 k x 0,00005

$= 7,5\ \Omega$