

Nama: Muhamad Abdulloh Azzam

Kelas : 1AEC4

Nim: 224443082

No. _____
Date _____

1. Hitung R ekuivalen dari rangkaian dibawah ini

$R_{\text{seri}} = R + R = 2R$

$R_{\text{paralel}} = \frac{2 \times 1}{2 + 1} = \frac{2}{3} R$

$R_{\text{tot}} = \frac{2}{3} R + R = \frac{5}{3} R //$

2.

$R_{\text{seri}} = R + R + R = 3R$

$R_{\text{p}} = \frac{3 \times 1}{3 + 1} = \frac{3}{4} R$

$R_{\text{total}} = R + \frac{3}{4} R + R = \frac{11}{4} R //$

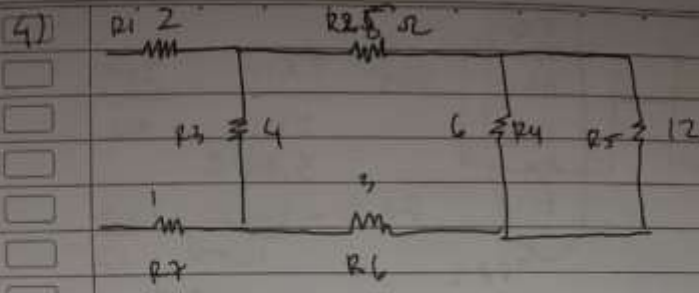
3.)

$R_{\text{seri}} = 3 + 9 = 12 \Omega$

$R_{\text{p}} = \frac{2 \times 6}{2 + 6} = \frac{12}{8} = 1.5 \Omega$

$R_{\text{tot}} = 3 + 1.5 + 5 = 9.5 \Omega //$

skofa



$$R_{P1} = \frac{12 \cdot 6}{12 + 6} = \frac{72}{18} = 4 \Omega$$

$$R_S = R_2 + R_{P1} + R_6$$

$$= 5 + 4 + 3$$

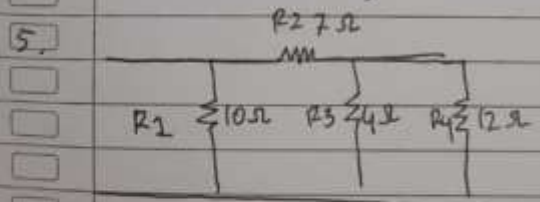
$$R_{PS} = 12$$

$$R_{P2} = \frac{R_3 \cdot R_{PS}}{R_3 + R_{PS}} = \frac{4 \cdot 12}{4 + 12} = \frac{48}{16} = 3 \Omega$$

$$R_{total1} = R_{P2} + R_1 + R_7$$

$$= 3 + 2 + 1$$

$$= 6 \Omega$$



$$R_{P1} = \frac{12 \times 4}{12 + 4} = \frac{48}{16} = 3 \Omega$$

$$R_{Seri} = R_2 + R_{P1}$$

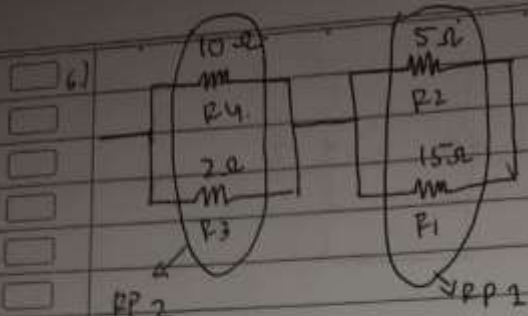
$$= 7 + 3$$

$$= 10 \Omega$$

$$R_{tot} = R_{Seri} + R_1$$

$$7 = \frac{10 \times 10}{10 + 10}$$

$$= \frac{100}{20} = 5 \Omega$$



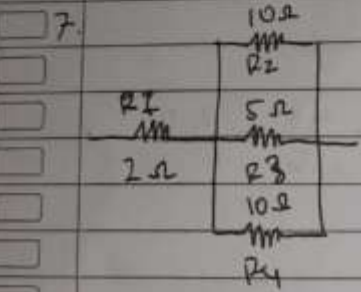
$$R_{P1} = \frac{5 \times 15}{5 + 15} = \frac{75}{20} = 3,75 \Omega$$

$$R_{P2} = \frac{10 \times 2}{10 + 2} = \frac{20}{12} = 1,67 \Omega$$

$$R_{total} = R_{P1} + R_{P2}$$

$$= 3,75 + 1,67$$

$$= 5,42 \Omega$$



$$\frac{1}{R_P} = \frac{1}{10} + \frac{1}{5} + \frac{1}{10}$$

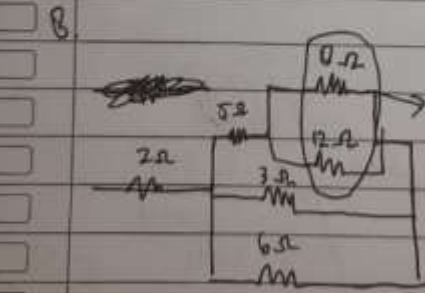
$$\frac{1}{R_P} = \frac{1 + 2 + 1}{10} = \frac{4}{10}$$

$$R_P = \frac{10}{4} = 2,5 \Omega$$

$$R_{tot} = R_1 + R_P$$

$$= 2 \Omega + 2,5 \Omega$$

$$= 4,5 \Omega$$



$$R_{P1} = \frac{8 \times 12}{8 + 12} = \frac{96}{20} = 4,8 \Omega$$

$$R_{seri} = 4,8 + 5 = 9,8 \Omega$$

$$\frac{1}{R_P} = \frac{1}{9,8} + \frac{1}{3} + \frac{1}{6}$$

$$R_T = 2 + 1,67 = 3,67 \Omega = \frac{6 + 19,6 + 9,8}{58,8} = \frac{35,4}{58,8} = R_P = 58,8$$

$$R_P = 1,67 \Omega$$