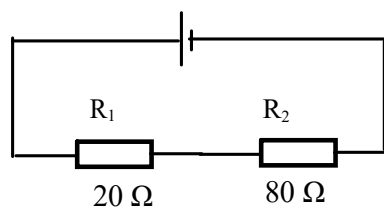


1

Weerstanden

Serieschakeling



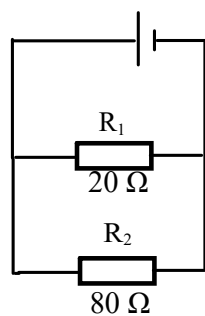
$$R_{\text{totaal}} = R_1 + R_2 = 20 + 80 = 100 \Omega$$

dec 4-21:28

2

Weerstanden

Parallelschakeling



Vervangingsweerstand

$$R_v = \frac{R_1 \times R_2}{R_1 + R_2} = \frac{20 \times 80}{20 + 80} = \frac{1600}{100} = 16 \Omega$$

dec 4-21:27

3 Combinatieschakelingen

$$R_v = \frac{R_1 \times R_2}{R_1 + R_2} = \frac{20 \times 20}{20 + 20} = \frac{400}{40} = 10 \Omega$$

$$R_t = R_v + R_3 = 10 + 50 = 60 \Omega$$

dec 4-21:28

4 Combinatieschakelingen

$$R_t = R_1 + R_3 = 20 + 30 = 50 \Omega$$

$$R_v = \frac{R_t \times R_2}{R_t + R_2} = \frac{50 \times 20}{50 + 20} = \frac{1000}{70} = 14,3 \Omega$$

dec 4-21:32

Combinatieschakelingen

5

$R_t = R_1 + R_3 = 240 + 100 = 340 \Omega$

$R_v = \frac{R_t \times R_2}{R_t + R_2} = \frac{340 \times 20}{340 + 20} = \frac{6800}{360} = 18,9 \Omega$

$R_t = R_v + R_4 = 18,9 + 300 = 318,9 \Omega$

dec 4-21:33

