

June 2016 P 2 Errata

(the original memo has a mistake in 2.1., and all subsequent answers were influenced)

$$\begin{aligned} 2.1. R_T &= R_s + R_p = R_s + \frac{R_1 \times R_2}{R_1 + R_2} \\ &= 2 + \frac{9 \times (15+8)}{9 + (15+8)} \\ &= 8,46 \dots \Omega \end{aligned}$$

$$\begin{aligned} \varepsilon &= I(R+r) \\ 12 &= I(8,46 \dots + 0,2) \\ I &= 1,38 \text{ A} \end{aligned}$$

$$2.2 \quad V = IR = 1,38 \times 8,46 = 11,67 \text{ V.}$$

$$2.3. \quad I_{8\Omega} = I_{\text{Tot}} \times \frac{9}{9+15+18} = 1,38 \times \frac{9}{32} = 0,39 \text{ A.}$$