

ΕΝΔΕΙΚΤΙΚΕΣ ΑΠΑΝΤΗΣΕΙΣ

Θέμα 4^ο

$$4.1 \quad R_{\text{ολ}} = R_1 + R_2 + R_3 \Rightarrow R_{\text{ολ}} = 6\Omega + 3\Omega + 2\Omega \Rightarrow R_{\text{ολ}} = 11\Omega$$

$$4.2 \quad I = \frac{U}{R_{\text{ολ}}} \Rightarrow I = \frac{22\text{V}}{11\Omega} \Rightarrow I = 2\text{A}$$

4.3

$$R_{1,2} = \frac{R_1 \cdot R_2}{R_1 + R_2} \Rightarrow R_{1,2} = \frac{6\Omega \cdot 3\Omega}{6\Omega + 3\Omega} \Rightarrow R_{1,2} = \frac{18\Omega^2}{9\Omega} \Rightarrow R_{1,2} = 2\Omega$$

$$R_{\text{ολ}} = \frac{R_{1,2} \cdot R_3}{R_{1,2} + R_3} \Rightarrow R_{\text{ολ}} = \frac{2\Omega \cdot 2\Omega}{2\Omega + 2\Omega} \Rightarrow R_{\text{ολ}} = \frac{4\Omega^2}{4\Omega} \Rightarrow R_{\text{ολ}} = 1\Omega$$

$$4.4 \quad I = \frac{U}{R_{\text{ολ}}} \Rightarrow I = \frac{22\text{V}}{1\Omega} \Rightarrow I = 22\text{A}$$