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1. Socu:

a) R_1, R_2

$$\frac{1}{R_0} = \frac{1}{R_1} + \frac{1}{R_2} = \frac{1}{220} + \frac{1}{420} \quad , R_{eq} = \frac{220 \cdot 420}{220 + 420} = 149,86 \Omega$$

$$I = \frac{V}{R} = \frac{5}{149,86} \approx 33,36 \text{ mA}$$

b) R_1, R_3 $\frac{1}{R_0} = \frac{1}{R_1} + \frac{1}{R_3} = \frac{1}{220} + \frac{1}{1000} \quad , R_{eq} = \frac{220 \cdot 1000}{220 + 1000} = 180,32 \Omega$

$$\frac{1}{R_0} = \frac{1}{R_1} + \frac{1}{R_3} = \frac{1}{220} + \frac{1}{1000} \quad , R_{eq} = \frac{220 \cdot 1000}{220 + 1000} = 180,32 \Omega$$

$$I = \frac{V}{R} = \frac{5}{180,32} \approx 27,72 \text{ mA}$$

c) R_1, R_2, R_3

$$\frac{1}{R_0} = \frac{1}{220} + \frac{1}{420} + \frac{1}{1000} \quad , R_{eq} = 130,32 \quad I = \frac{5}{130,32} \approx 38,36 \text{ mA}$$

2. Socu:

a) R_1, R_2

$$R_{eq} = R_1 + R_2 = 220 + 420 = 640 \Omega$$

$$I = \frac{V}{R} = \frac{5}{640} \approx 7,24 \text{ mA}$$

b) R_1, R_3

$$R_{eq} = R_1 + R_3 = 220 + 1000 = 1220 \Omega$$

$$I = \frac{V}{R} = \frac{5}{1220} \approx 4,09 \text{ mA}$$

c) R_1, R_2, R_3

$$R_{eq} = 220 + 420 + 1000 = 1640 \Omega$$

$$I = \frac{V}{R} = \frac{5}{1640} \approx 2,95 \text{ mA}$$

Order	V	I_1 (mA)	I_2 (mA)	I_3 (mA)	I_{eq} (mA)	R_1 (Ω)	R_2 (Ω)	R_3 (Ω)	R_{eq} (Ω)
R_1, R_2	5	22,21	10,63	5,32	38,36	220	420	1000	1640
R_1, R_3	5	22,21	5,32	27,72	33,36	220	1000	420	1220
R_1, R_2, R_3	5	22,21	10,63	5,32	38,36	220	420	1000	1640

Order	V	I_1 (mA)	I_2 (mA)	I_3 (mA)	I_{eq} (mA)	R_1 (Ω)	R_2 (Ω)	R_3 (Ω)	R_{eq} (Ω)
R_1, R_2	5	15,84	3,405	7,25	22,49	220	420	1000	1640
R_1, R_3	5	0,99	4,09	4,10	9,18	220	1000	420	1220
R_1, R_2, R_3	5	0,65	1,39	2,95	4,99	220	420	1000	1640