

F 8 c. 4

0.1 $R [\Omega]$ ohm

$$2. I = \frac{U}{R} \leftarrow \text{napětí}$$

→ odpor

3. Když má při napětí 1 volta proud 1A

4. a) AND

4 AND

5. AND MODBY

U1. a) $U = 20V$

$$I = 10 \text{ mA} = 0,01A$$

$$R = ?$$

$$R = \frac{U}{I} = \frac{20}{0,01} = 2000 \Omega = \underline{\underline{2 \text{ k}\Omega}}$$

$$b) U = 60V$$

$$R = 2000 \Omega$$

$$I = ?$$

$$I = \frac{U}{R} = \frac{60}{2000} = 0,03A$$

$$c) I = 4 \text{ mA} = 0,004$$

$$R = 2000 \Omega$$

$$U = ?$$

$$U = R \cdot I = 2000 \cdot 0,004 = \underline{\underline{8V}}$$

$$2. a) 2V \Rightarrow 2A$$

$$3,5V \Rightarrow 3,5A$$

$$5V \Rightarrow 5A$$

$$b) 1A \Rightarrow 1V$$

$$2,5A \Rightarrow 2,5V$$

$$4A \Rightarrow 4V$$



3) a) činný / $U = 1V$
 $I = 2A$
 $R = \frac{U}{I} = \frac{1}{2} = 0,5 \Omega$

modrý / $U = 1V$
 $I = 1A$
 $R = \frac{U}{I} = \frac{1}{1} = 1 \Omega$

4) 1 - $4A$

2 - $2A$

5) 1 - $2,5V$

2 - $5V$

4) kmitanie prúd a napätí a počet nájdených odporov

5) $0,15 k\Omega = 150 \Omega$; $0,2 m\Omega = 0,0002 \Omega$; $2,8 k\Omega = 2800 \Omega$; $5 M\Omega = 5000000 \Omega$

6) $U = 230V$
 $I = 220 mA = 0,220 A$
 $R = ?$

$$R = \frac{U}{I} = \frac{230}{0,220} = \underline{\underline{1045 \Omega}}$$

10) $U_1 = 220V$
 $I = 200 mA = 0,2 A$

$U_2 = 24V$
 $I_2 = ?$
 $R = \frac{U}{I} = \frac{220}{0,2} = 1100 \Omega$

7) $U = 230V$
 $R = 140 \Omega$
 $I = ?$

$$I = \frac{U}{R} = \frac{230}{140} = \underline{\underline{1,6 A}}$$

$$I_2 = \frac{U}{R} = \frac{24}{1100} = 0,022 A = \underline{\underline{22 mA}}$$

8) $R = 1,2 k\Omega = 1200 \Omega$

$I = 10 mA = 0,01 A$

$U = ?$

$$U = R \cdot I = 1200 \cdot 0,01 = \underline{\underline{12V}}$$

9) $R = 120 \Omega$

$I = 0,05 A$

$U = ?$

$$U = R \cdot I = 120 \cdot 0,05 = 6V$$

Nemôžeme použiť 3V voltmeter - spadl by so.