

Answer on Question #73192, Physics / Electric Circuits

Question. What happens to the circuit if a 1.5 volt battery is removed and is replaced by a volt battery.

Given. $U_0 = 1.5 \text{ V}$; $U = 1 \text{ V}$.

Solution.

According to the Ohm's law

$$I = \frac{U}{R}$$

If $R = \text{const}$ then

$$I_0 = \frac{1.5}{R} \quad \text{and} \quad I = \frac{1}{R}$$

So, if the voltage decreases then the current will decrease.

Answer. The current will decrease.

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