

EXPERIMENT:

No. 1

Verification of ohm's law

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1) consider the circuit as shown in figure.

→ Applying current division rule to find current through R'

$$I_R = \frac{0.5 \times 1k}{1k + 1k}$$

$$= \frac{0.5 \times 1000}{2 \times 1000}$$

$$I_R = 0.25 A$$

$$I_R = 250 mA$$

$$V_R = I_R R$$

(Ohm's Law)

$$= 0.25 A \times 1 \times 10^3$$

$$V_R = 250 V$$

which is quite evident from the simulation.

Thus we can see that ohm's law is verified.

Simulation:-

