

If we read the voltage values on voltmeter as V_1 , V_2 , V_3 and current on ammeter as I_1 , I_2 and I_3 , there is a relation between them as shown below;

$$\frac{V_1}{I_1} = \frac{V_1}{I_1} = \frac{V_1}{I_1} = constant = R$$

$$R = \frac{V}{I}$$
 or $V = I.R$