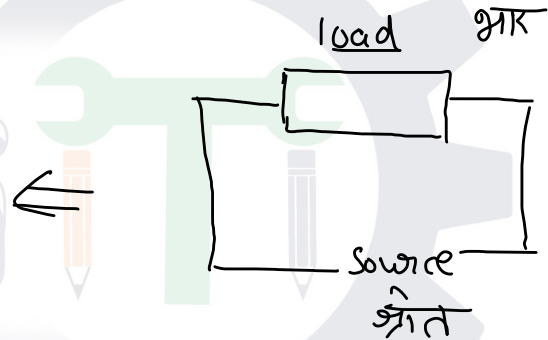
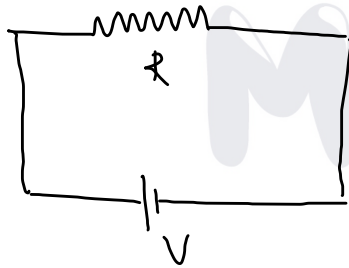


$\Omega m \rightarrow$ Electrical X

$R \rightarrow$ प्रतिरोध



ओह्म सिद्धान्त कहता है कि किसी भी बन्द इलेक्ट्रिक सर्किट में करन्ट (I) सीधा वोल्टेज (V), के साथ अनुपात में है और स्थिर तापमान पर रजिस्ट्रान्स 'R' के साथ व्युत्क्रमानुपात में है।

Voltage $\rightarrow V \rightarrow \text{Volt} \rightarrow V$

Current (धारा) $\rightarrow I \rightarrow \text{Amp} \rightarrow A$

Resistance (प्रतिरोध) $\rightarrow R \rightarrow \text{ohm} \rightarrow \Omega$



मान्य

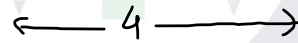
शारीरिक अवस्था

(Physical state)

ताप



$$10/2 = 5\Omega$$

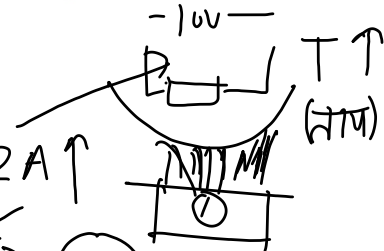


$$20/4 = 5\Omega$$

2A ↑



≤



$$V \propto I$$

समानुपात
•/•

(Proportional) समानुपात

(Inverse proportional)
व्यसमानुपात

↑ मैदापा & रवाना ↑

↓ मैदापा ↑ & ~~↑~~
Exercise ↑ ↓

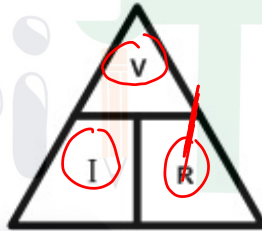
$$V = RI = IR$$

Trick

$$V = IR \quad \text{--- (i)}$$

$$I = V/R \quad \text{--- (ii)}$$

$$R = V/I$$



Ohm's Law Triangle

Constant (अचर)

$$a \propto b$$

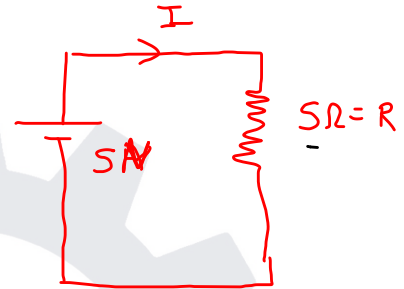
$$a = kb$$

$$a \propto \frac{1}{c}$$

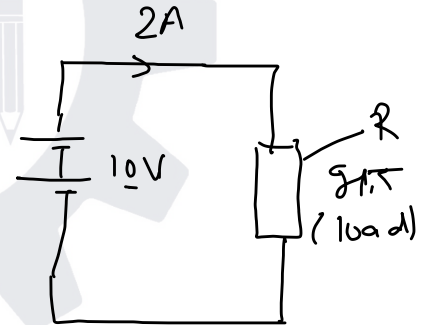
$$a = \frac{k}{c}$$

$$V = IR \Rightarrow I = \frac{V}{R}$$

$$(1) I = \frac{V}{R} = \frac{5}{5} = 1A$$



$$(2) R = \frac{V}{I} = \frac{10}{2} = 5\Omega$$



श्रेणी, समांतर,

⇒ Power (शक्ति), ऊर्जा (Energy)

