

Ohm's Law

Ohm's Law states that the current through a conductor is proportional to the voltage across it provide that temperature doesn't change.

Voltage = Resistance x Current

$$V = I \times R$$

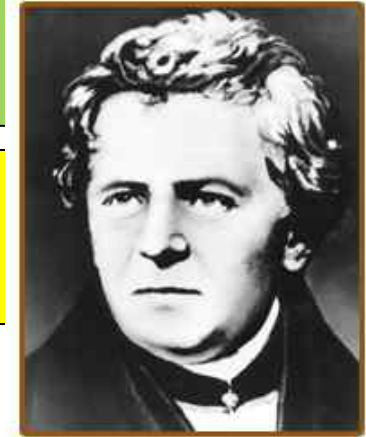
Resistance is measured in ohms (Ω)

Rearrange the formula for current and resistance:

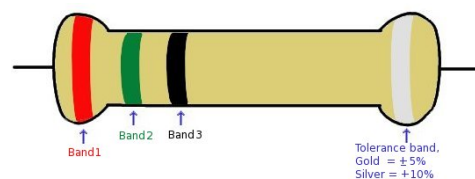
I=

R=

Did you know: **Georg Simon Ohm** (16 March 1789 – 6 July 1854) was a [Bavarian](#) (German) [physicist](#) and [mathematician](#). As a high school teacher, Ohm began his research with the new [electrochemical cell](#), invented by Italian scientist [Alessandro Volta](#). Using equipment of his own creation, Ohm found that there is a direct proportionality between the potential difference ([voltage](#)) applied across a conductor and the resultant [electric current](#). This relationship is known as [Ohm's law](#). (info from Wikipedia)



Resistor Color Codes					
	Band 1	Band 2	Band 3	Band 4	Band 5
Color	1st Digit	2nd Digit	Multiplier	Tolerance	Reliability
Black		0	1		
Brown	1	1	10		1%
Red	2	2	100		0.1%
Orange	3	3	1,000		0.01%
Yellow	4	4	10,000		0.001%
Green	5	5	100,000		
Blue	6	6	1,000,000		
Violet	7	7	10,000,000		
Gray	8	8	100,000,000		
White	9	9	1,000,000,000		
Gold			x 0.1	5%	
Silver			x 0.01	10%	



What would the resistance be for a resistor with the following colour bands: orange, blue, red?