

EQUVELENT RESISTANCAN (Phys 119)

119 phys

أ. سجي القصير

جامعة الإمام محمد بن سعود الإسلامية

Objective

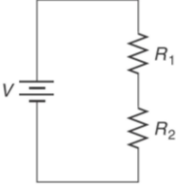
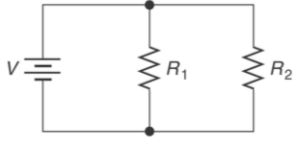
- 1. To calculate the equivalent resistance of two resistors in series.**
- 2. To calculate the equivalent resistance of two resistors in parallel.**

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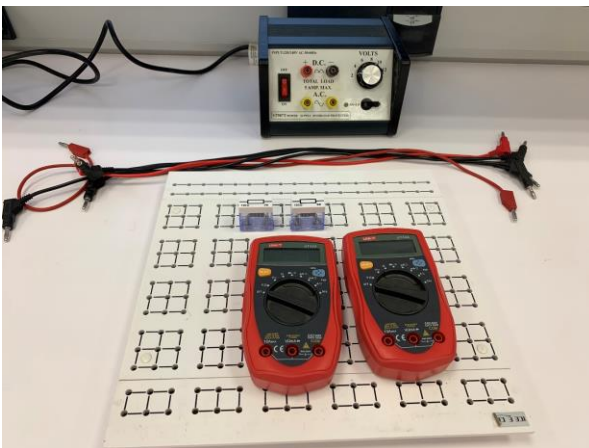
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Theory

	Series	Parallel
Circuit		
Voltage	$V_{total} = V_1 + V_2$	$V_{total} = V_1 = V_2$
Current	$I_{total} = I_1 = I_2$	$I_{total} = I_1 + I_2$
Resistance	$R_{eq} = R_1 + R_2$	$\frac{1}{R_{eq}} = \frac{1}{R_1} + \frac{1}{R_2}$

Equipment



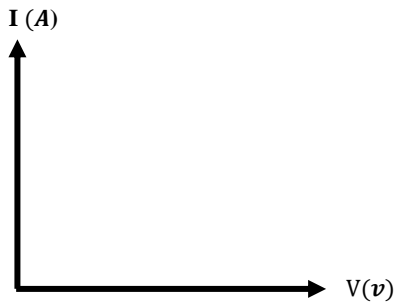
- DC power supply
- Ammeter
- Voltmeter
- breadboard
- resistors
- connecting leads.

Series	Parallel
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Part1- Series

$V_{max}(v) =$

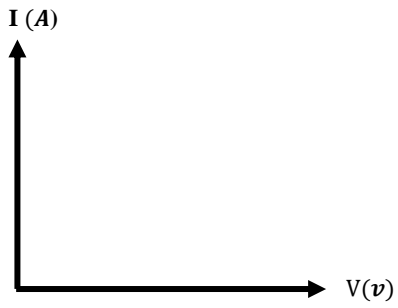
$v(V)$	$i(A)$



Part2- Parallel

$V_{max}(v)=$

$v(V)$	$i(A)$



Calculations