Linear Circuits

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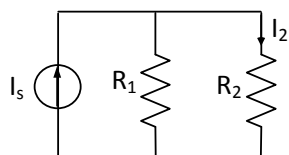
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Module 2
Lesson 6: Current Divider Law
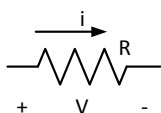
Current Divider Law

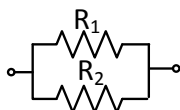Objective:
* Be able to use

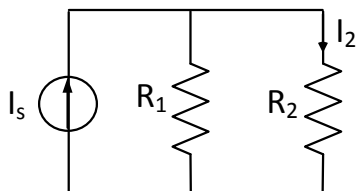Current Divider Law
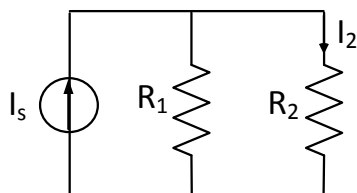

Builds Upon:

* Ohm's Law: V=iR

* Resistors in parallel: $R_{eq} = \dfrac{R_1 R_2}{R_1 + R_2}$

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Current Divider Law

$$I_2 = \frac{R_1}{R_1 + R_2} I_s$$

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$$I_2 = \frac{R_1}{R_1 + R_2} I_s$$

Recognize When to use Current Divider Law

$$i_1 = \frac{200}{300} 0.6$$

i_1 300 Ω

100 Ω   0.6A

200 Ω

50Ω   100Ω   50Ω i_1 2A

50Ω

$i_1 = 1A$

$\approx$

50Ω   50Ω i_1 2A