Linear Circuits

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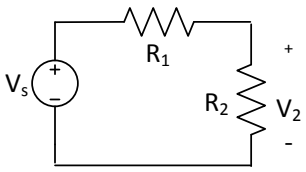
Module 2
Lesson 5: Voltage Divider Law

Voltage Divider Law

Objective:

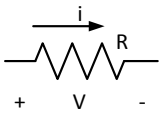
- Be able to use



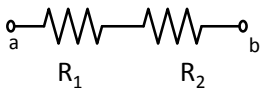
Voltage Divider Law

Builds Upon:

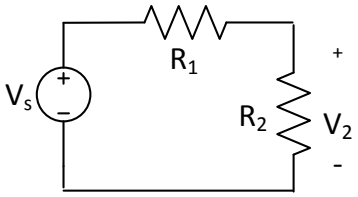
- Ohm's Law: V=iR



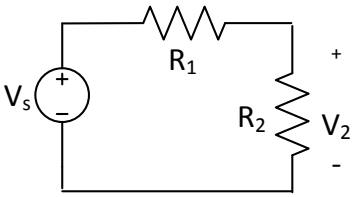
- Resistors in series: $R_{eq} = R_1 + R_2$



Voltage Divider Law

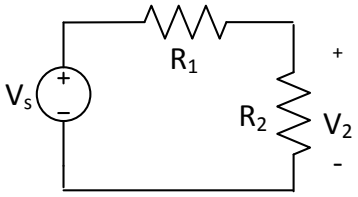


$$V_2 = \frac{R_2}{R_1 + R_2} V_s$$



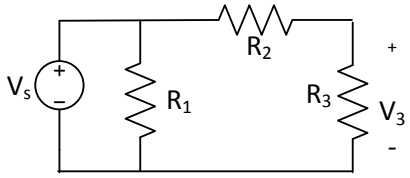
$$V_2 = \frac{R_2}{R_1 + R_2} V_s$$

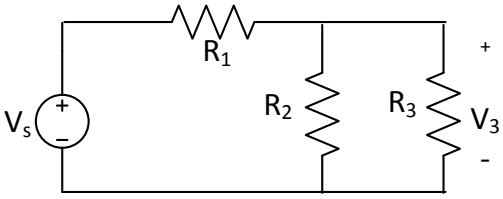
Voltage Divider Law Quiz

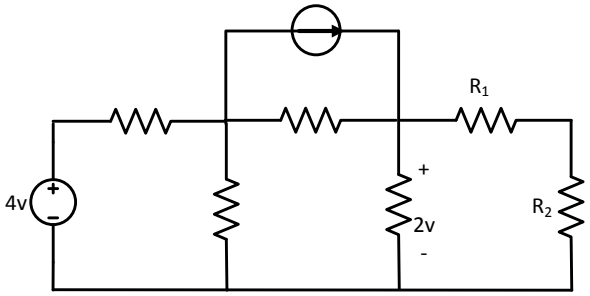


What is V_2 if V_s = 10v and R_1 = 200Ω and R_2 = 200Ω ?

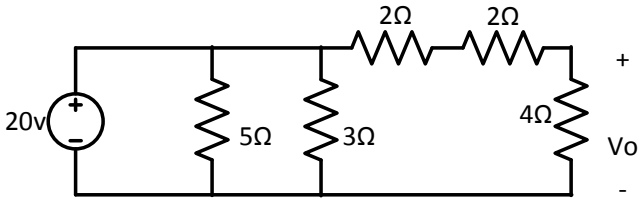
Recognize When to use Voltage Divider Law







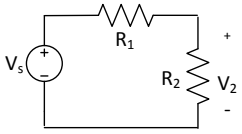
Voltage Divider Quiz



What is V_o?

Key Concept

- Voltage Divider Law



$$V_2 = \frac{R_2}{R_1 + R_2} V_s$$