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Introduction to Electronics

An introduction to electronic components and a study of circuits containing such devices.



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Review of Kirchoff's Laws

Review of KVL and KCL

TECH

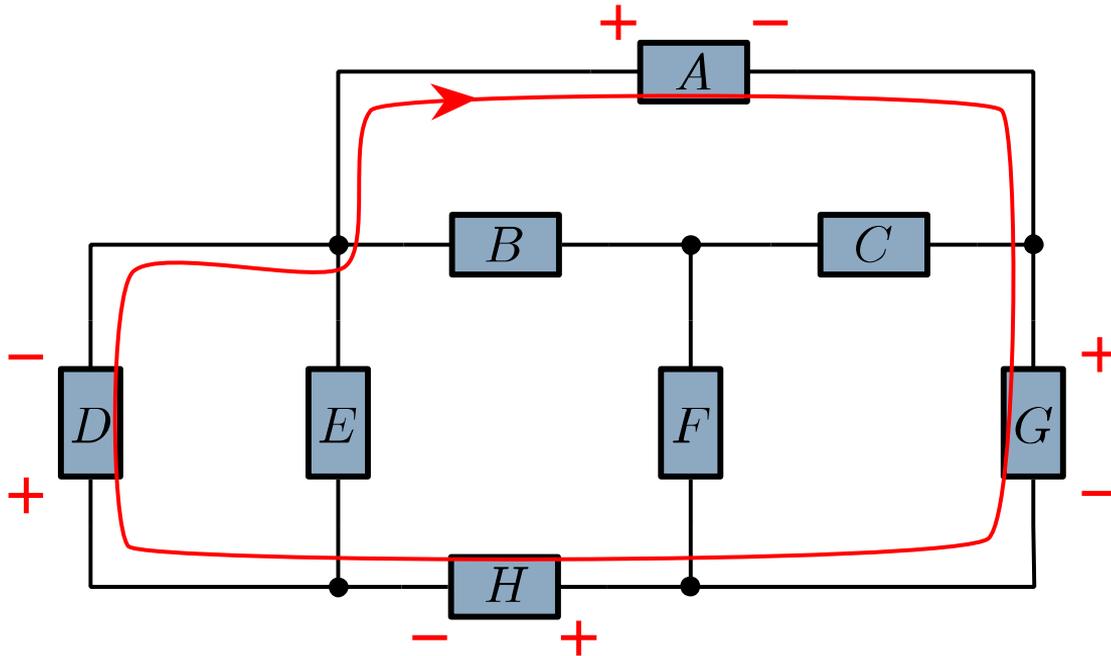
Previous Lesson

- Review of linear circuit components

Lesson Objectives

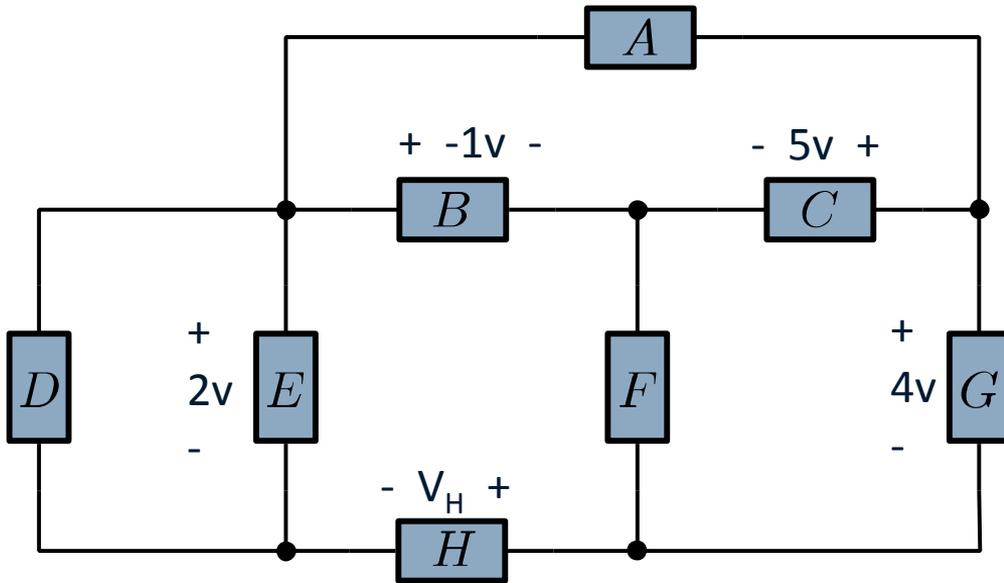
- ◎ Review
 - Kirchhoff's Current Law (KCL)
 - Kirchhoff's Voltage Law (KVL)

Kirchhoff's Voltage Law (KVL)

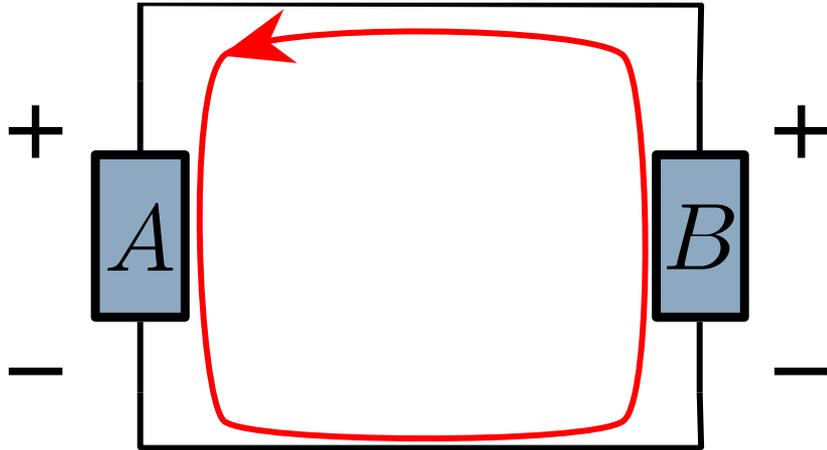


The sum of voltages around any closed loop is zero.

KVL Quiz



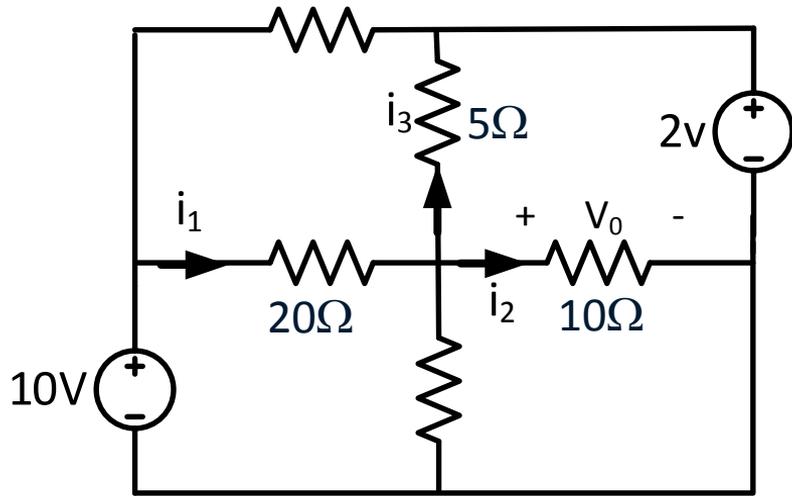
KVL and Parallel Circuits



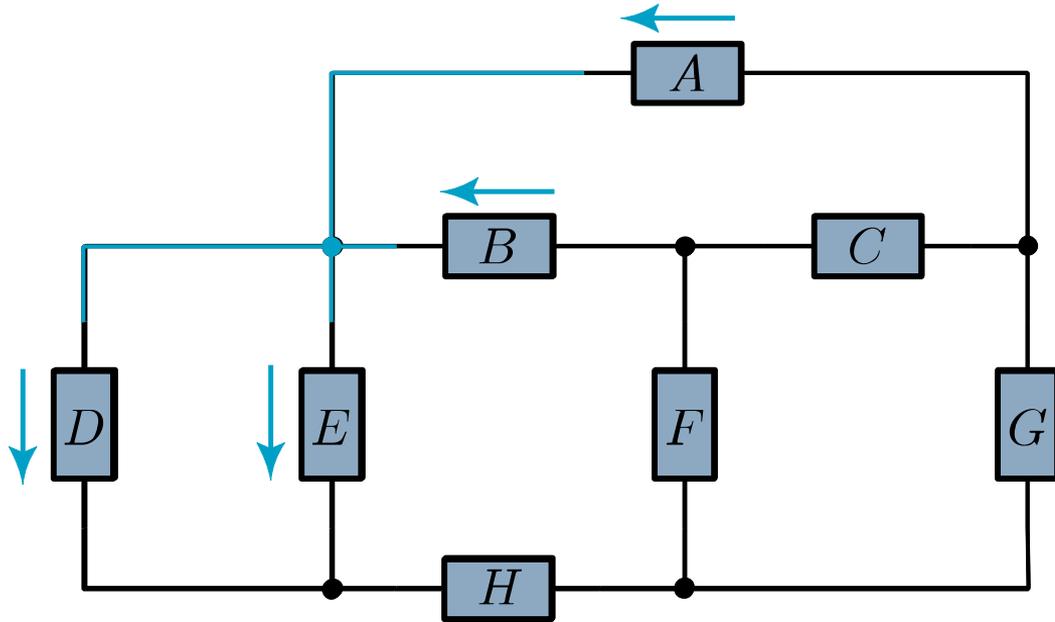
$$v_A - v_B = 0$$

$$v_A = v_B$$

KVL Example

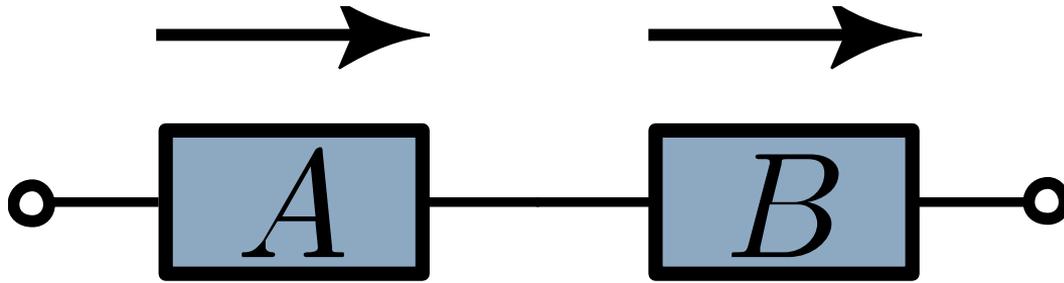


Kirchhoff's Current Law (KCL)



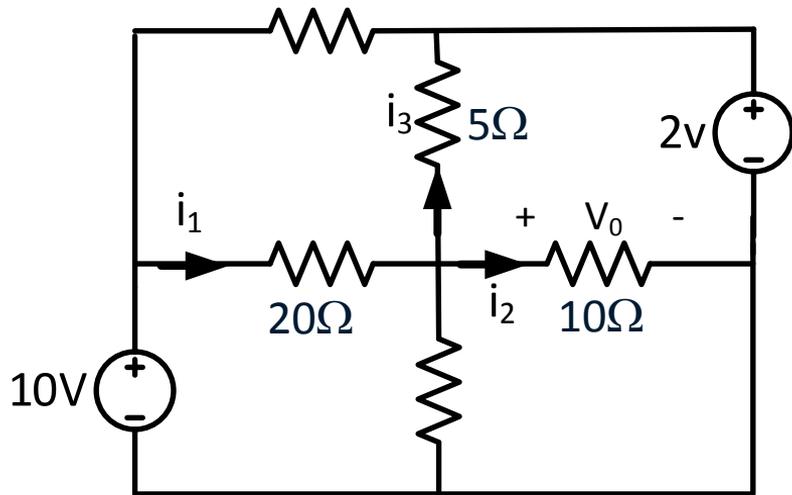
$$\sum i_{\text{entering}} = \sum i_{\text{leaving}}$$

KCL and Series Circuits



$$i_A = i_B$$

KCL Example



Summary

- ⦿ Introduced KVL and KCL
- ⦿ Applied KVL to parallel elements
- ⦿ Applied KCL to series elements
- ⦿ Solved a simple circuit using
Kirchhoff's Laws

Next Lesson

- Review of Impedance Methods