

Prerequisites: The class will build on concepts from Circuits I and II.

A key skill for success in the course is the ability to analyze electronic schematics (circuits).

Primarily containing these three components:

- 1. Voltage Source.**
- 2. Current Source.**
- 3. Resistor.**
- *. We will add others.**

Given a circuit – you should be able to:

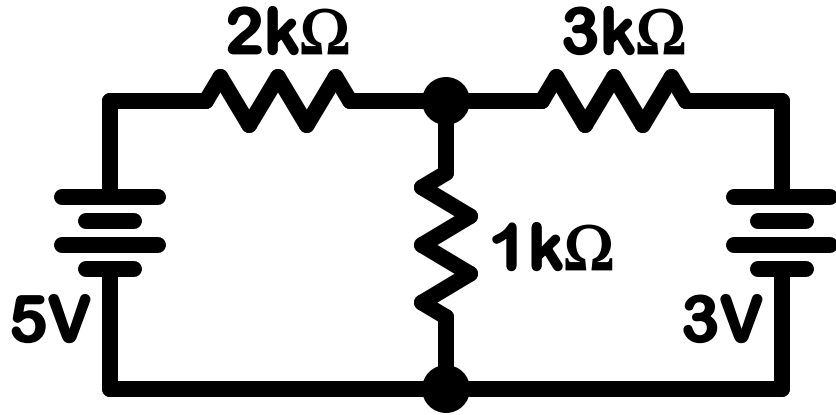
- 1. Identify voltages and currents.**
- 2. Determine component values to obtain voltages and currents.**
- 3. Find transfer functions.**

Need to be capable of conducting both Mesh and Nodal Analysis.

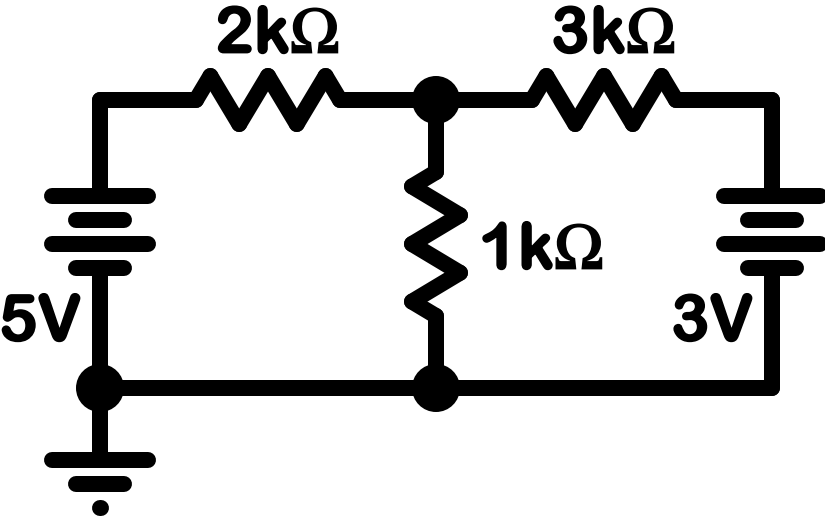
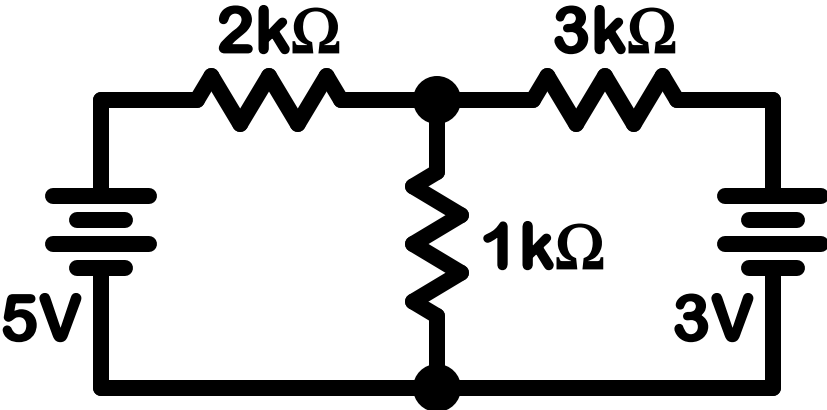
Mesh: Currents are unknowns – use KVL to build a set of equations.

Nodal: Voltages are unknowns – use KCL to build a set of equations.

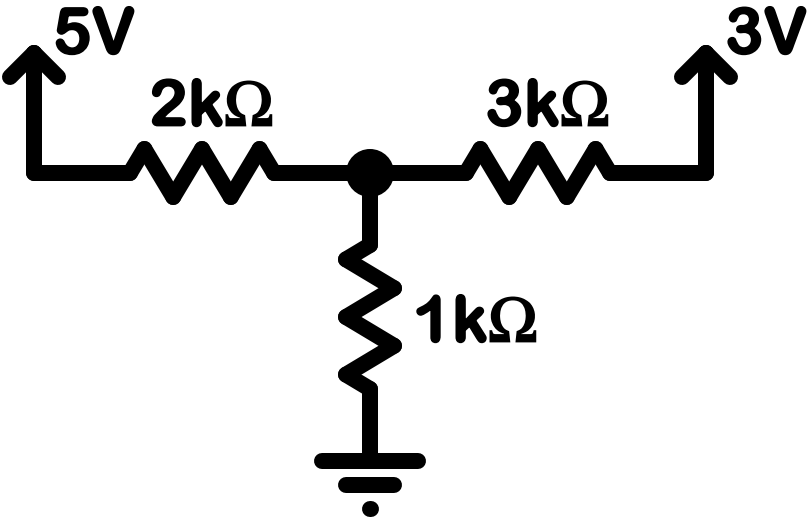
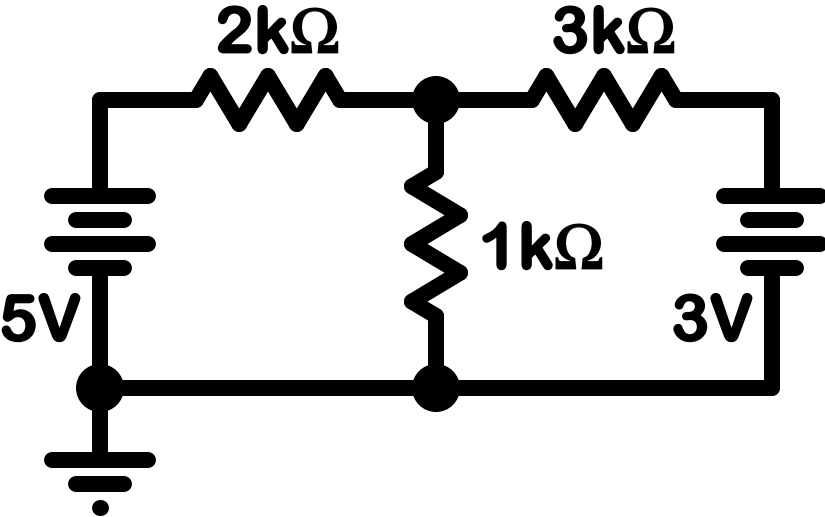
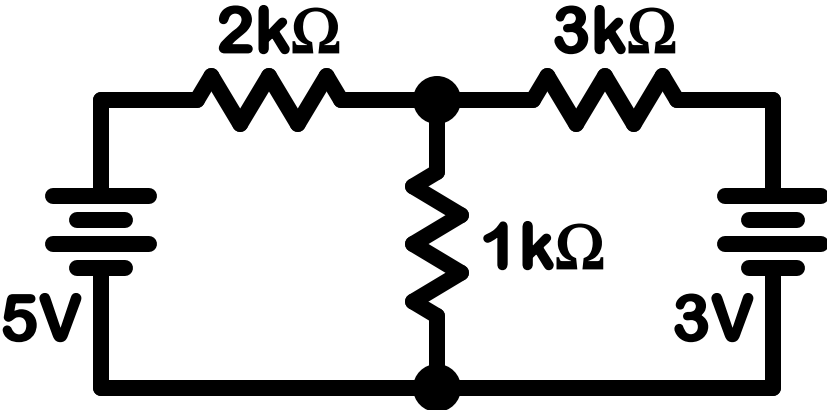
Example Circuit:



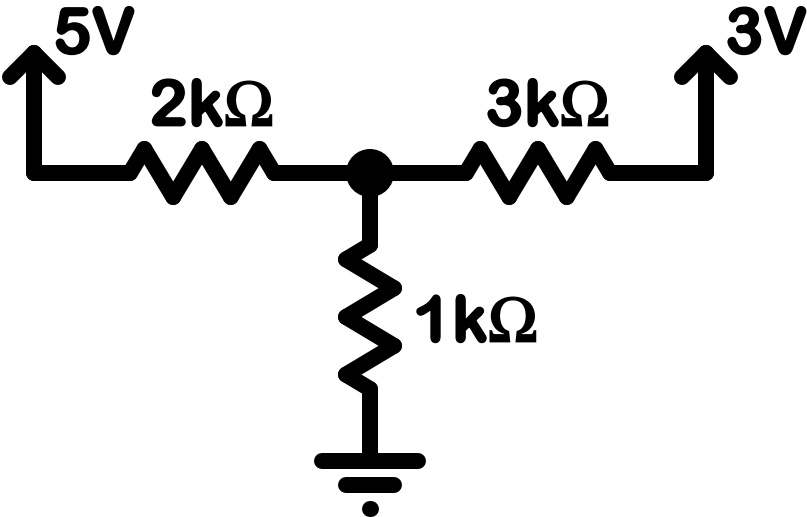
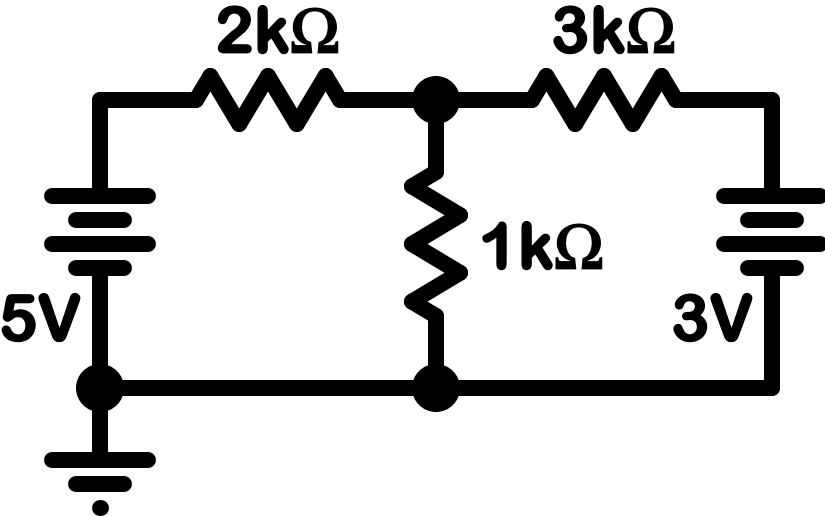
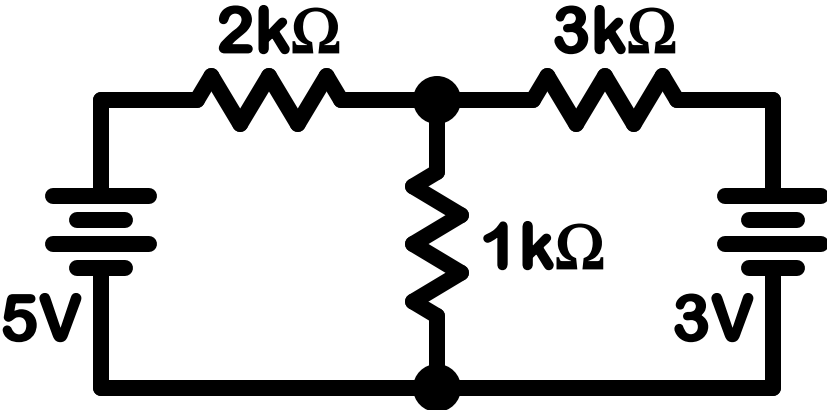
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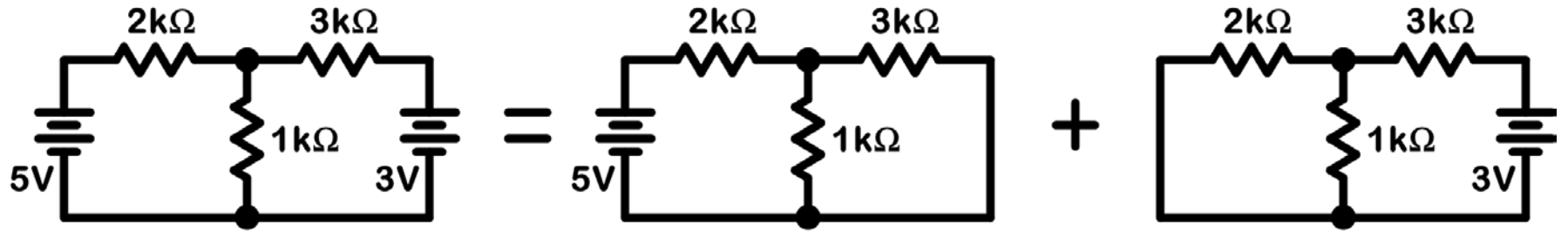
Example Circuit:



Superposition (Circuit Math):



Superposition (Circuit Math):



Example Circuit:

