

Topic

Mesh Current Method

Governing Equations and Assumptions

KVL and KCL

$$v = iR$$

$$p = vi$$

Process

- ① Identify the meshes
- ② Label the mesh currents
=> All go in the same direction (cw/ccw)
- ③ Label the voltages across every circuit element
- ④ Determine the voltages in terms of the mesh currents
$$v = iR$$
- ⑤ KVL for each mesh
- ⑥ Determine any constraint equations for dependent sources and current sources
=> current sources shared between two meshes
- ⑦ Solve for the mesh currents and other quantities