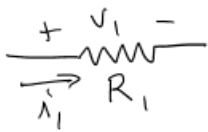
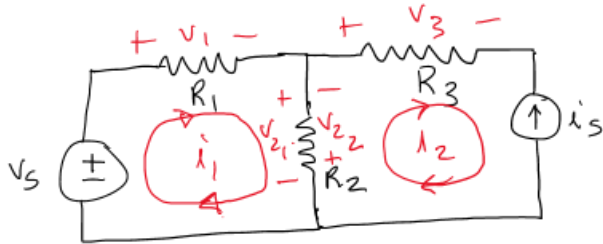


Mesh

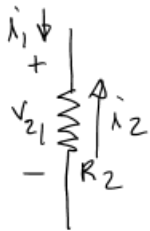
- Loop that does not contain other loops

Mesh Current Method

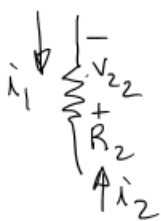
- Label a current for each mesh (mesh current)
- KVL for each mesh
 - Need each voltage in terms of the mesh currents



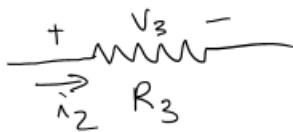
$$v_1 = i_1 R_1$$



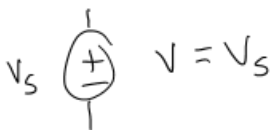
$$v_{2_1} = (i_1 - i_2) R_2$$



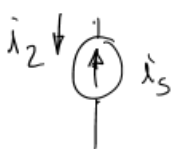
$$v_{2_2} = (i_2 - i_1) R_2$$



$$v_3 = i_2 R_3$$



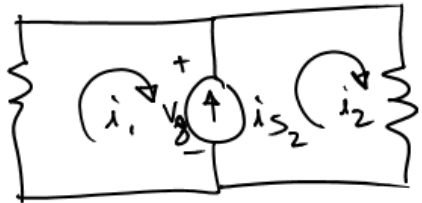
$$v = v_s$$



$$i_2 = -i_s$$

Mesh Current is known

Special Case (Supermesh)

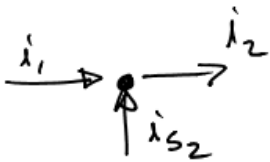


Mesh Current is
not known

- Create a supermesh by combining Meshes 1 and 2



- KVL around the supermesh
- Add a constraint equation for the current source



$$-i_1 + i_2 - i_{s2} = 0$$