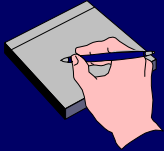


Example

You try it!



In the circuit below you are given \mathcal{E}_1 , \mathcal{E}_2 , R_1 , R_2 and R_3 . Find I_1 , I_2 and I_3 .

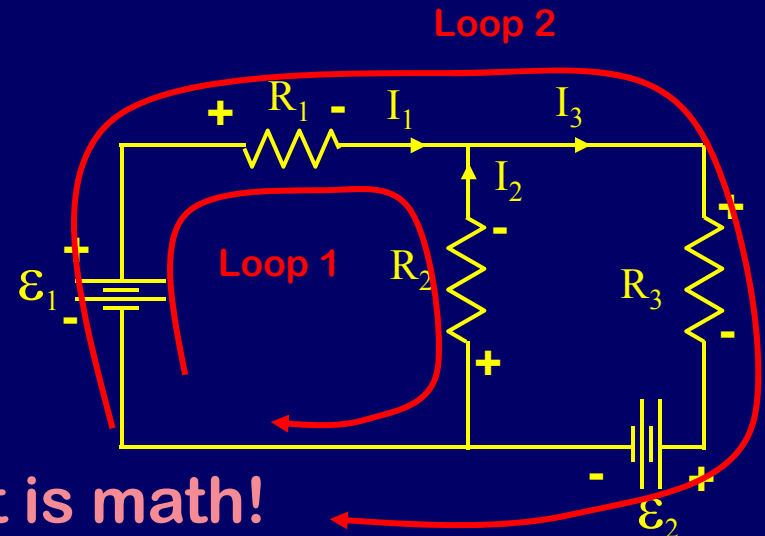
- ✓ 1. Label all currents (Choose any direction)
- ✓ 2. Label +/- for all elements (Current goes + \Rightarrow - for resistor)
- ✓ 3. Choose loop and direction (Your choice!)
- ✓ 4. Write down voltage drops (Potential increases or decreases?)

Loop 1: $+\mathcal{E}_1 - I_1R_1 + I_2R_2 = 0$

Loop 2: $+\mathcal{E}_1 - I_1R_1 - I_3R_3 - \mathcal{E}_2 = 0$

- ✓ 5. Write down junction equation

Node: $I_1 + I_2 = I_3$



3 Equations, 3 unknowns the rest is math!