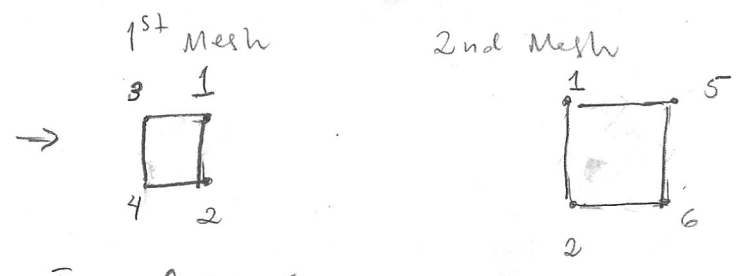
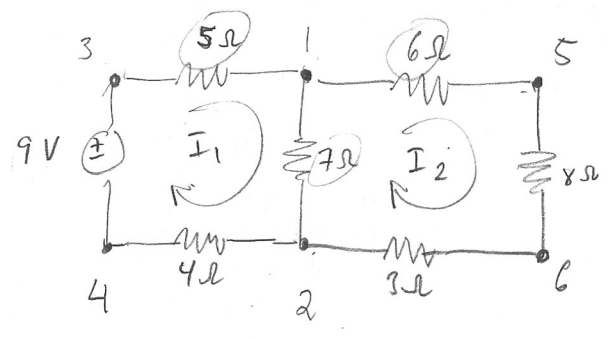
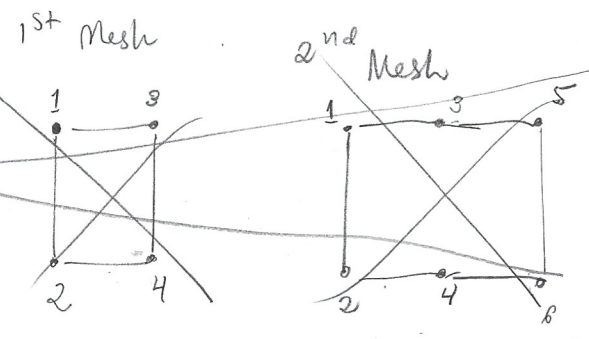
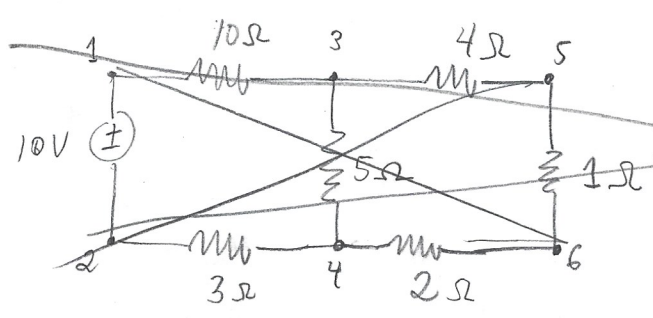


For the case where getMesh() is not fixed.



$I_1 = 0.645$   
 $I_2 = 0.188$

solved by hand

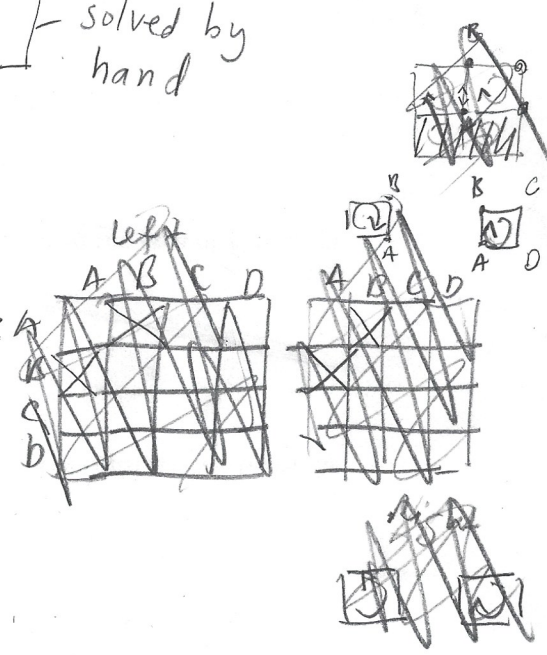
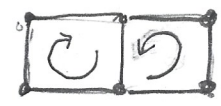
Mesh 1 directed

|   | 1 | 2      | 3      | 4      | 5      | 6      |
|---|---|--------|--------|--------|--------|--------|
| 1 | - | 1 to 2 | 1 to 3 | 1 to 4 | 1 to 5 | 1 to 6 |
| 2 |   | -      | 2 to 3 | 2 to 4 | 2 to 5 | 2 to 6 |
| 3 |   |        | -      | 3 to 4 | 3 to 5 | 3 to 6 |
| 4 |   |        |        | -      | 4 to 5 | 4 to 6 |
| 5 |   |        |        |        | -      | 5 to 6 |
| 6 |   |        |        |        |        | -      |

Mesh 2 directed

|   | 1 | 2      | 3 | 4 | 5      | 6      |
|---|---|--------|---|---|--------|--------|
| 1 |   | 1 to 2 |   |   | 1 to 5 |        |
| 2 |   |        |   |   |        | 2 to 6 |
| 3 |   |        |   |   |        |        |
| 4 |   |        |   |   |        |        |
| 5 |   |        |   |   | 5 to 1 |        |
| 6 |   |        |   |   |        | 6 to 2 |

setOrientation():



Input2. +x+

Matrix Generated by function :

$$(5 + 7 + 4)I_1 + 7I_2 = 9$$

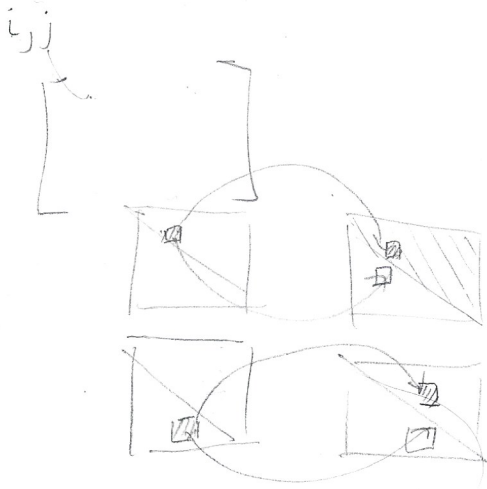
$$7I_1 + (6 + 7 + 3 + 8)I_2 = 0$$

$$\begin{bmatrix} 16 & 7 \\ 7 & 24 \end{bmatrix} \begin{bmatrix} I_1 \\ I_2 \end{bmatrix} = \begin{bmatrix} 9 \\ 0 \end{bmatrix}$$

$$I_1 = 0.645$$

$$I_2 = 0.188$$

solved from function's matrix



Solution by hand:

KVL Mesh 1:

$$9 = 5I_1 + 7(I_1 - I_2) + 4I_1$$

Mesh 2:

$$6I_2 + 8I_2 + 3I_2 + 7(I_2 - I_1) = 0$$

Solving the system yields

$$I_1 = 0.645$$

$$I_2 = 0.188$$