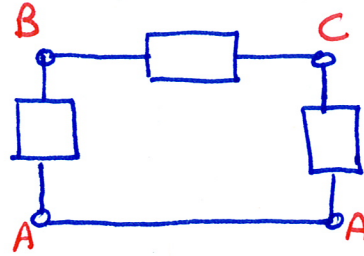


KVL (Again)

Consider the loop



STEP 1: Choose a direction

- Clockwise $V_{A \rightarrow B} + V_{B \rightarrow C} + V_{C \rightarrow A} = 0$

- Anticlockwise $V_{A \rightarrow C} + V_{C \rightarrow B} + V_{B \rightarrow A} = 0$

STEP 2: choose the sign

- Voltage drop is positive : $V_{A \rightarrow B} = V_A - V_B$
 $V_{B \rightarrow A} = V_B - V_A$

If the destination node has lower potential, you have a positive number

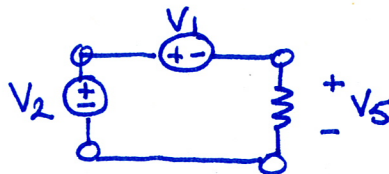
- Voltage rise is positive

If the destination node has a higher potential, you have a positive number

$$V_{A \rightarrow B} = V_B - V_A$$

$$V_{B \rightarrow A} = V_A - V_B$$

Application



Clockwise, drop positive : $-V_2 + V_1 + V_5 = 0$

clockwise, rise positive : $V_2 - V_1 - V_5 = 0$

anticlockwise, drop positive : $-V_5 - V_1 + V_2 = 0$

anticlockwise, rise positive $V_5 + V_1 - V_2 = 0$