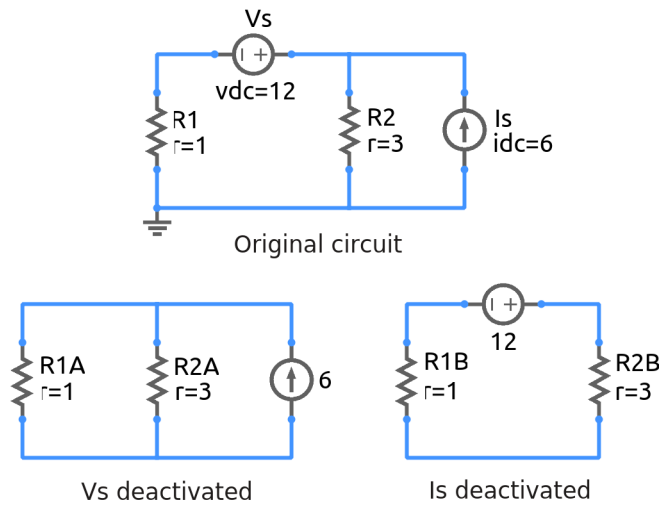# ee101_superposition_1.sqproj

Original circuit

Vs deactivated   Is deactivated

To obtain the response (voltages/currents) of a circuit with more than one *independent* sources, the superposition theorem can be used. The procedure is as follows.

1. Identify the *independent* sources, S_1, S_2, S_3, etc.

2. Deactivate all independent sources except S_1. Compute the quantity (quantities) of interest. Call it $x^{(1)}$.

3. Repeat with S_2, S_3, etc., and obtain $x^{(2)}$, $x^{(3)}$, etc.

4. Finally, the net result is given by, $x = \sum x^{(i)}$, with i going over all independent sources.

Exercise

For the circuit shown in the figure, obtain the currents through R_1 and R_2 by superposition. Compare with simulation results.