

YILDIRIM BEYAZIT UNIVERSITY

CENG 205 LABORATORY

EXPERIMENT 2

Objective

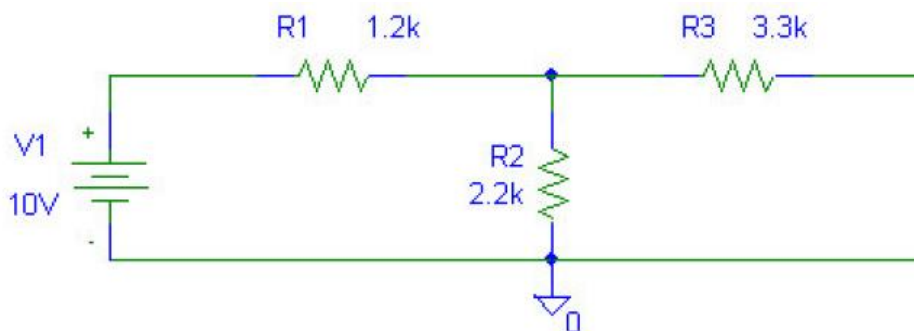
Validate the superposition theorem.

Theory

The superposition theorem states that the current through, or the voltage across, any resistive branch of a multi-source network is the algebraic sum of the contributions due to each source acting independently. When the effects of one source are considered, the others are replaced by their internal resistances. Superposition is effective on for linear circuit relationships.

Laboratory Exercises:

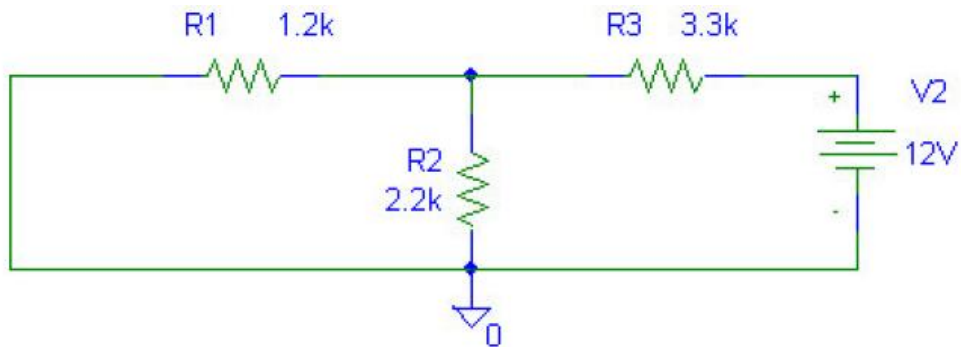
- 1) Construct the circuit shown below.



2) Measure I_1 , I_2 , and I_3 , noting the directions.

I_1	I_2	I_3

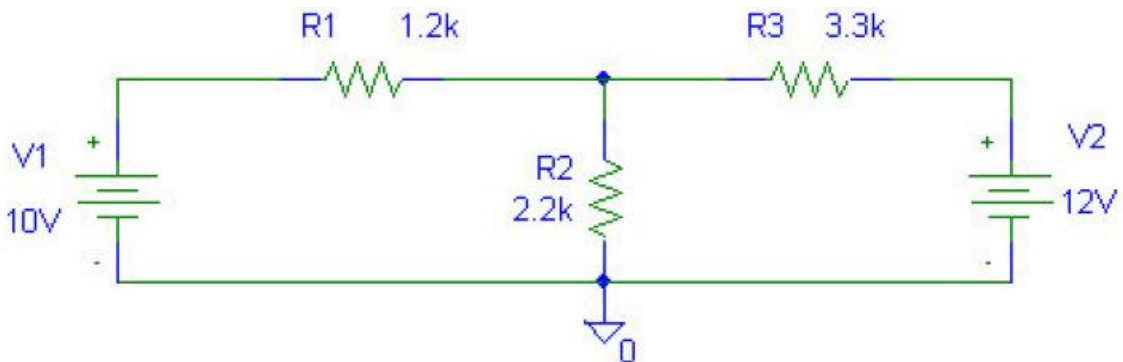
3) Construct the circuit shown below.



4) Measure I_1 , I_2 , and I_3 , noting the directions.

I_1	I_2	I_3

5) Construct the circuit shown below.



6) Measure l_1 , l_2 , and l_3 , noting the directions.

l_1	l_2	l_3

7) Discuss the results.