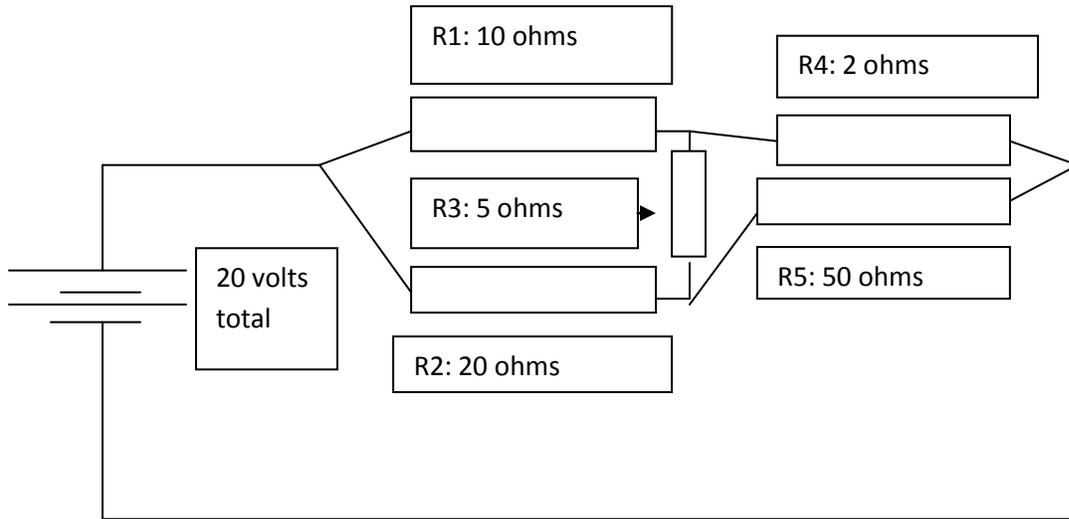
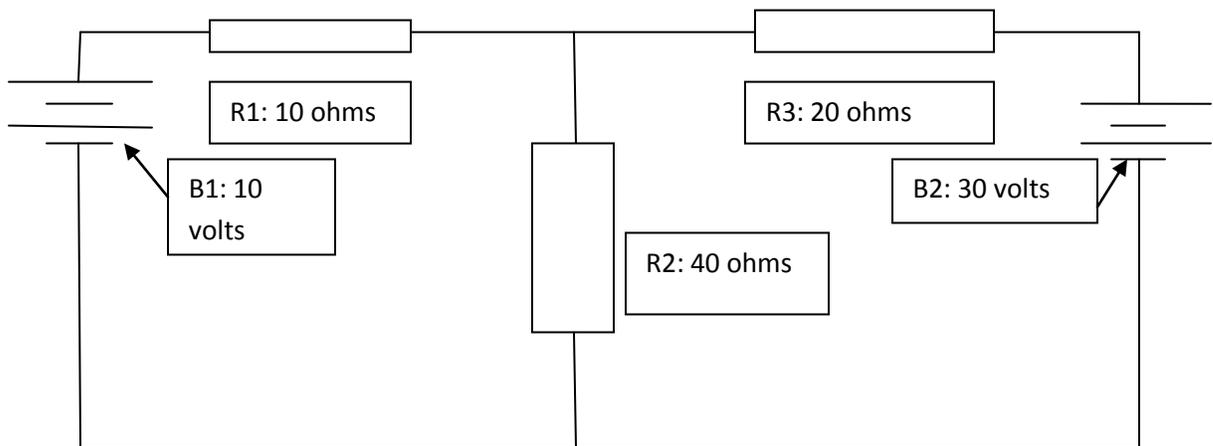


## Shock Value Network Analysis Test

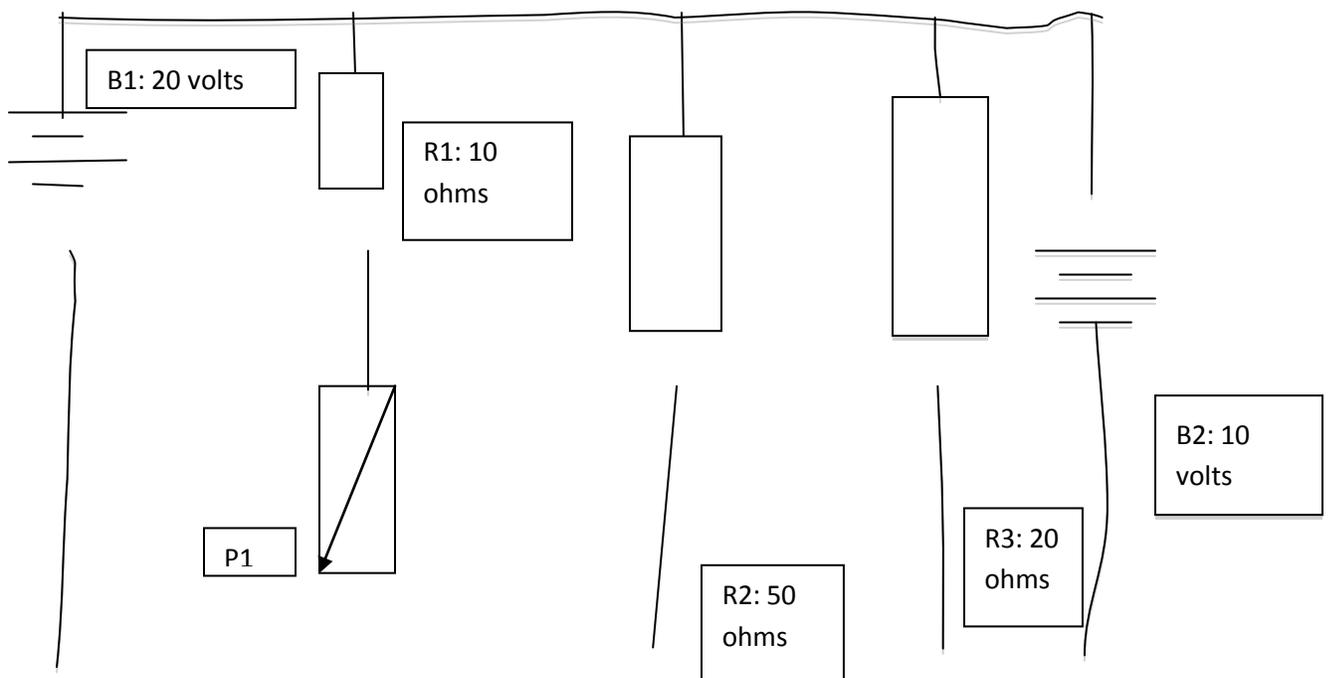
Round all answers to the nearest whole number after completing calculations. There is a tolerance of three on answers. There is tolerance for answers, for the calculations aren't exact. This causes discrepancies when solving for various values of components. Questions are incorrect if there is no label.

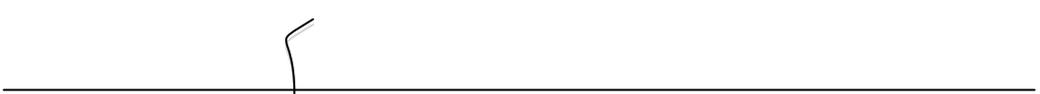


- 1.) What is the total resistance?
- 2.) What is the total current?
- 3.) What is the total power rating?
- 4.) What is the amount of coulombs per second through R1?
- 5.) What is the voltage across R1?
- 6.) What is the amount of watts across R1?
- 7.) What is the amount of amps across R2?
- 8.) What is the amount of joules per coulomb per second across R2?
- 9.) What is the power rating across R2?
- 10.) What is the electromotive force across R3?
- 11.) What is the current across R3?
- 12.) What is the power rating across R3?
- 13.) What is the amount of coulombs per second across R4?
- 14.) What is the emf across R4?
- 15.) What is the amount of watts across R4?
- 16.) What is the amount of amps across R5?
- 17.) What is the amount of volts across R5?
- 18.) What is the power rating across R5?
- 19.) What network theorem is most effective at analyzing this circuit?
- 20.) What is the name of this circuit?



- 21.) What is the total resistance?
- 22.) What is the total coulombs per second?
- 23.) What is the total power rating?
- 24.) What is the total voltage?
- 25.) What is the voltage across R1?
- 26.) What is the amount of amps across R1?
- 27.) What is the amount of watts across R1?
- 28.) What is the amount of joules per coulomb per second across R2?
- 29.) What is the current across R2?
- 30.) What is the power rating across R2?
- 31.) What is the emf across R3?
- 32.) What is the amount of coulombs per second across R3?
- 33.) What is the amount of watts across R3?
- 34.) What two network theorems are most effective at analyzing this circuit?





35.) What two network theorems are most effective at analyzing this circuit?

For the next few questions, assume that P1 has a resistance of 50 ohms.

36.) What is the voltage across P1?

37.) What is the current across P1?

38.) What is the amount of watts across P1?

For the next few questions, assume that P1 has a resistance of 10 ohms.

39.) What is the emf across P1?

40.) What is the amount of amps across P1?

41.) What is the power rating across P1?

For the next few questions, assume that P1 has a resistance of 20 ohms.

42.) What is the electromotive force across P1?

43.) What is the amount of coulombs per second across P1?

44.) What is the amount of watts across P1?

For the next few questions, assume that P1 has a resistance of 100 ohms.

45.) What is the amount of joules per coulomb per second across P1?

46.) What is the current across P1?

47.) What is the power rating of P1?

For the next few questions, assume that P1 has a resistance of 5 ohms.

48.) What is the voltage across P1?

49.) What is the amount of coulombs per second across P1?

50.) What is the amount of watts across P1?

#### Tiebreakers

When two teams/people taking the test get the same amount of questions correct the tiebreakers are to be used and the team/person that gets the most tiebreaker questions correct places better than the team/person that got less tiebreaker questions correct.

- 1.) What were the two most important scientists involved with the "war of currents"? (include first and last names)
- 2.) What is the name of the scientist who invented the battery? (include titles, first name, and last name)

- 3.) What is the name of the scientist who created the predecessor to Ohm's Law? (include first name, middle name, and last name)
- 4.) What is the name of the scientist who created conventional flow notation? (include first and last name)
- 5.) What is the name of the scientist that the first circuit is named after? (include titles, first name, and last name)