

✓
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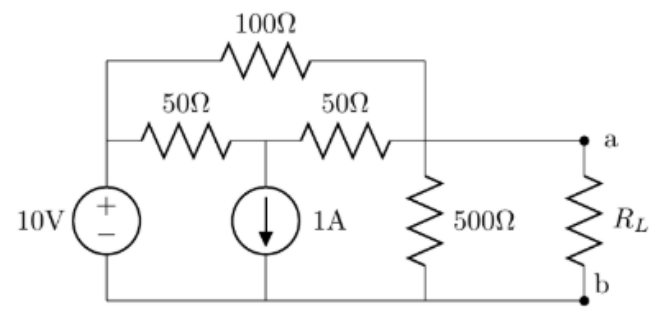
GRADE
100%

Module 4 Quiz

LATEST SUBMISSION GRADE
100%

- For the circuit below, determine the Thevenin equivalent resistance R_{TH} of the circuit with respect to the output between nodes a and b . Write your answer in ohms, but do not include units. Include at least two decimal places in your answers for the questions in this quiz.

1 / 1 point



45.45

✓ Correct

2. Determine the Thevenin equivalent voltage with respect to the output terminals a and b . Write your answer in volts, but do not include units.

1 / 1 point

-13.63

✓ Correct

3. Using the results from Questions 1 and 2, determine the short circuit current corresponding of the corresponding Norton equivalent circuit. Write your answer in amps, but exclude units in your answer.

1 / 1 point

-0.29

✓ Correct

4. For what value of the load resistance R_L is power transfer maximized?

1 / 1 point

45.45

✓ Correct

5. For R_L that maximizes power transfer, what is the power dissipated by the load? Write your answer in watts, but exclude units.

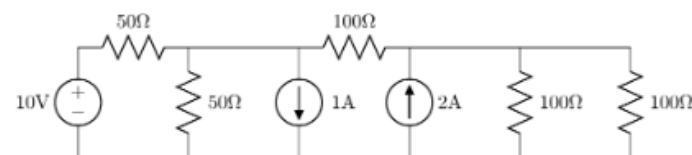
1 / 1 point

1.02283

✓ Correct

6. For the circuit below, use source transformations to redraw the circuit in terms of a single independent source and a resistor. Write the resistance value in ohms, but exclude units.

1 / 1 point



175

✓ Correct

7. For the previous circuit, if the independent source of the simplified circuit is a voltage source, what is its value in volts, excluding units?

1 / 1 point

-120

✓ Correct

8. For the previous circuit, if the independent source of the simplified circuit is a current source, what is its value in amps, excluding units?

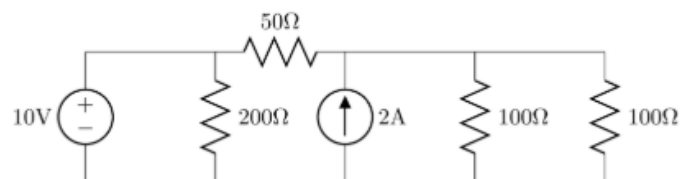
1 / 1 point

-0.6857

✓ Correct

9. For the circuit below, use source transformations and the principle of superposition to determine the current flowing through the right-most 100Ω resistor. Write your answer in amps, but exclude units.

1 / 1 point



0.55

✓ Correct

10. What is the power dissipated by the 200Ω resistor? Write your answer in watts, but exclude units.

1 / 1 point

0.5

✓ Correct