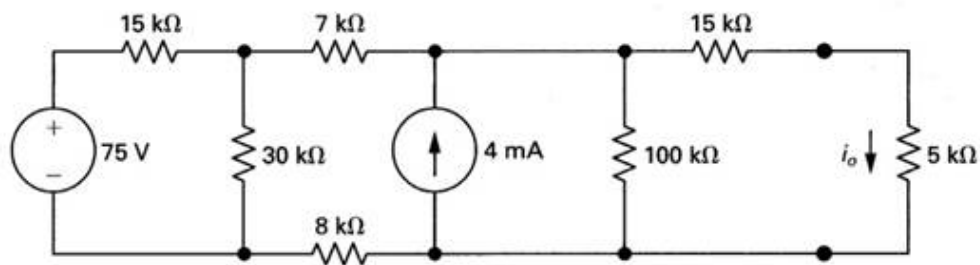|	
Started on	Sunday, 23 October 2016, 8:04 PM
State	Finished
Completed on	Monday, 24 October 2016, 5:15 AM
Time taken	9 hours 10 mins
Grade	**75.00** out of 100.00

Question 1

Incorrect

Mark 0.00 out of 10.00

P4.51_6ed

Use source transformations to:

a) Find the current i0 through the 5 kΩ (kilo Ohm) resistor.

$i_0 = $ [5] ✗ mA (milli Amp)

b) Find the power absorbed/delivered by the 75V voltage source.

$P_{75V} = $ [375] ✗ mW (milli Watt)
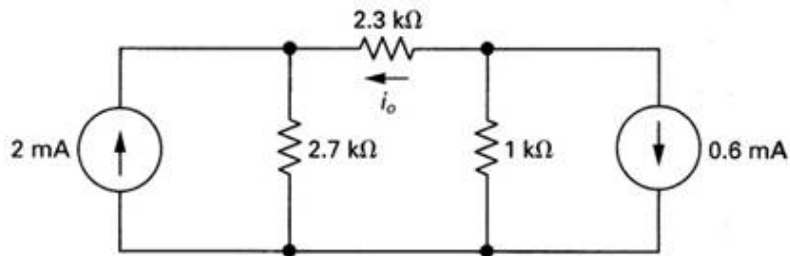
Numeric Answer

a) i_0 = 3.0 mA

b) P_{75V} = -105 mW delivering

Incorrect

Marks for this submission: 0.00/10.00.

P4.52_6ed

Use source transformations to:

a) Use Find the current i_0 through the 2.3 kΩ (kilo Ohm) resistor.

i_0 = {-1.020|-0.980 | -1 | ✓ mA (milli Amp)

b) Find the power absorbed/delivered by the 0.6 mA current source.

$P_{0.6mA}$ = | 240 | ✓ µW (micro Watt)

Numeric Answers

a) i_0 = -1.0 mA

b) $P_{0.6mA}$ = 240 mW (micro Watt) absorbing

Correct

Marks for this submission: 10.00/10.00.
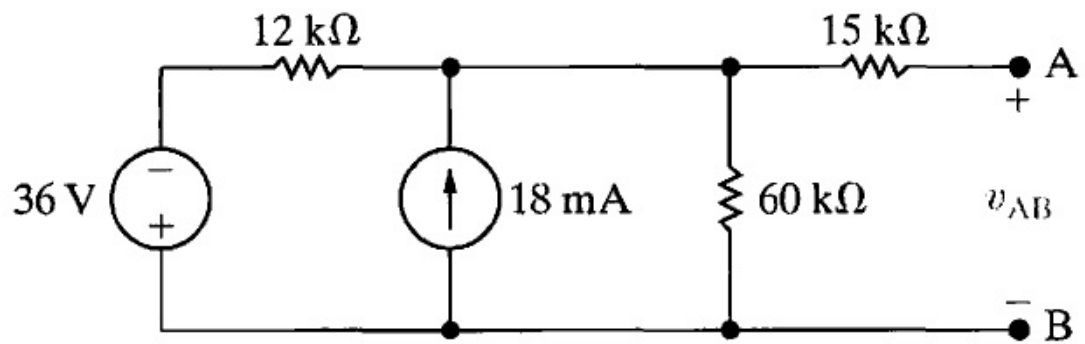
AP4.18_9ed

A voltmeter with an internal resistance of 100 kΩ (kilo Ohm) is used to measure the voltage v_{AB} in the circuit shown.

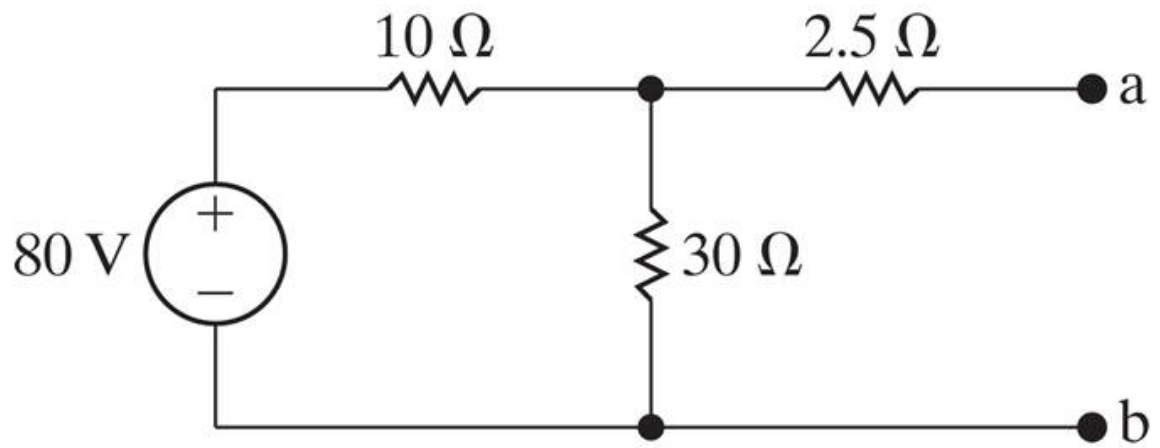What is the voltmeter reading? v_{AB} = | 120 | ✓ V

Numeric Answer

v_{AB} = Voltmeter Reading = 120V

Correct

Marks for this submission: 10.00/10.00.

10 Ω   2.5 Ω   a

80 V   30 Ω

b

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P4.64_10ed

Find the Thévenin equivalent circuit with respect to the terminals a,b for this circuit.

V_{Th} = [60] ✓ V

R_{Th} = [10] ✓ Ω (Ohm)

Numeric Answer

V_{Th} = 60 V
R_{Th} = 10 Ω (Ohm)

Correct

Marks for this submission: 10.00/10.00.

10 A

30 Ω

8 Ω   5.2 Ω   a

500 V   +
          −   12 Ω

b

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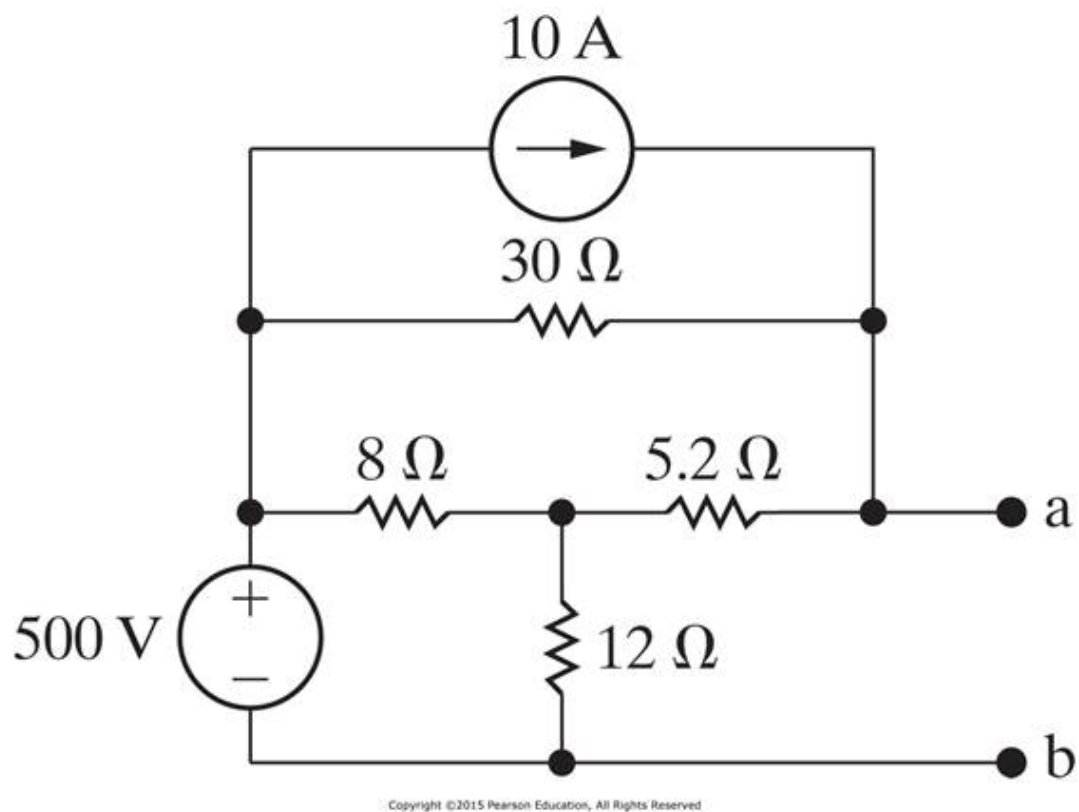
P4.67_10ed

Find the Thévenin equivalent circuit with respect to the terminals a,b for this circuit.

V_{Th} = [425] ✓ V

R_{Th} = [7.5] ✓ Ω (Ohm)

Numeric Answer

V_{Th} = 425 V
R_{Th} = 7.5 Ω (Ohm)

Correct

Marks for this submission: 10.00/10.00.

(a)

(b)

AS4-02

The circuit in figure (a) is simplified to its Thévenin equivalent shown in (b).

Find the numerical values for V_{Th} and R_{Th}

$V_{Th} =$ [60] ✗ V

$R_{Th} =$ [20] ✗ kΩ (kilo Ohm)

Numeric Answer

$V_{Th} = 2$ V
$R_{Th} = 1.6$ kΩ

Incorrect

Marks for this submission: 0.00/10.00.
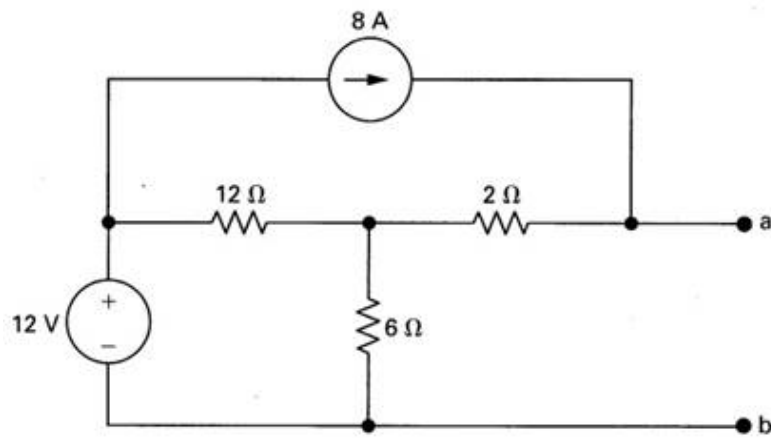
P4.59_6ed

Find the Thévenin equivalent circuit with respect to the terminals a,b for this circuit.

V_{Th} = [52] ✓ V

R_{Th} = [6] ✓ Ω (Ohm)

Numeric Answer

V_{Th} = 52 V
R_{Th} = 6 Ω (Ohm)

Correct

Marks for this submission: 10.00/10.00.

4 A

10 Ω

8 Ω

a

60 V

$+$

$-$

40 Ω

b

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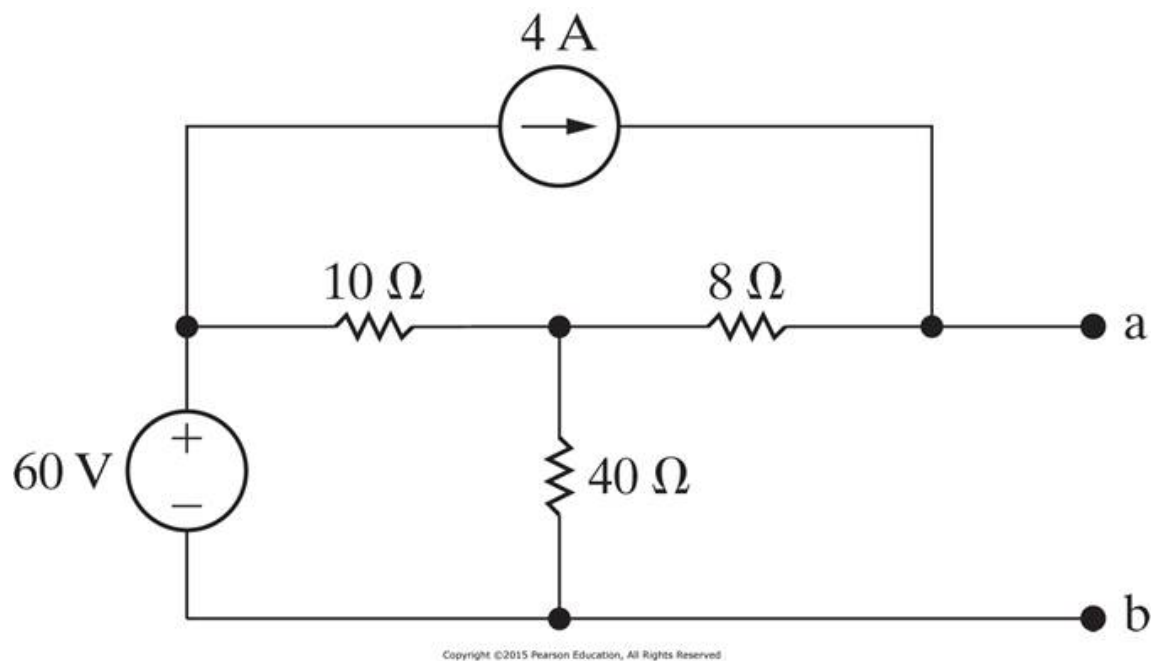
P4.66_10ed

Find the Norton equivalent circuit with respect to the terminals a,b for this circuit.

$I_N = $ [7] ✓ A

$R_{Th} = $ [16] ✓ Ω (Ohm)

Numeric Answer

$I_N = 7$ A
$R_{Th} = 16$ Ω (Ohm)

Correct
Marks for this submission: 10.00/10.00.
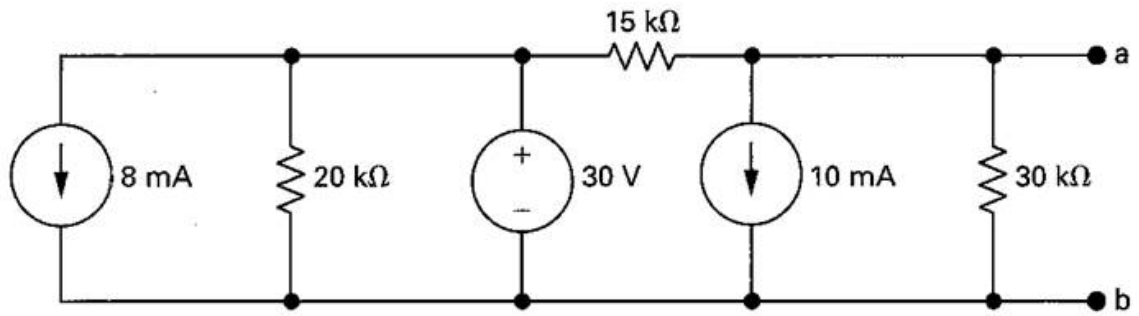
P4.62_6ed

Find the Norton equivalent circuit with respect to the terminals a,b for this circuit. The Norton equivalent current should "point up".

I_N = [-8] ✓ mA (milli Amp)

R_{Th} = [10] ✓ kΩ (kilo Ohm)

Numeric Answer

I_N = -8 mA
R_{Th} = 10 kΩ (Ohm)

Correct

Marks for this submission: 10.00/10.00.

15 kΩ

10 mA   10 kΩ   30 V   3 mA   5 kΩ

a

b
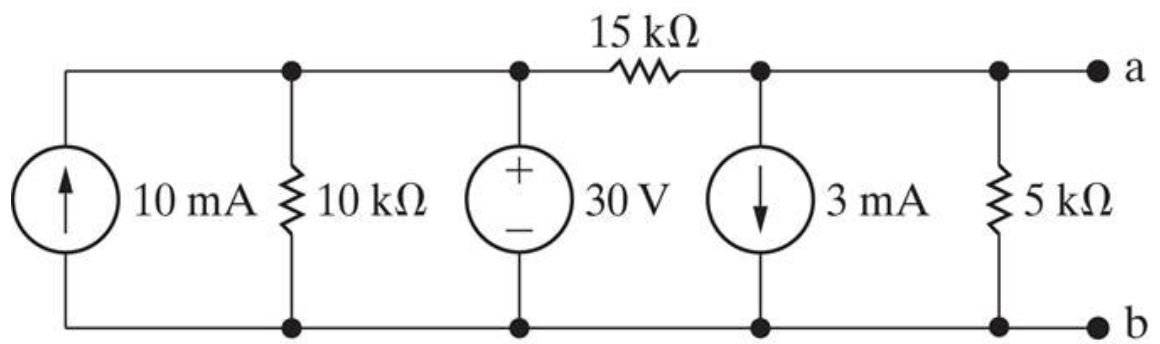
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P4.68_10ed

Find the Norton equivalent circuit with respect to the terminals a,b for this circuit.

I_N = [-1] ✓ mA

R_{Th} = [3750] ✗ Ω (Ohm)

Numeric Answer

I_N = -1mA
R_{Th} = 3.75kΩ (Ohm)

Partially correct
Marks for this submission: 5.00/10.00.