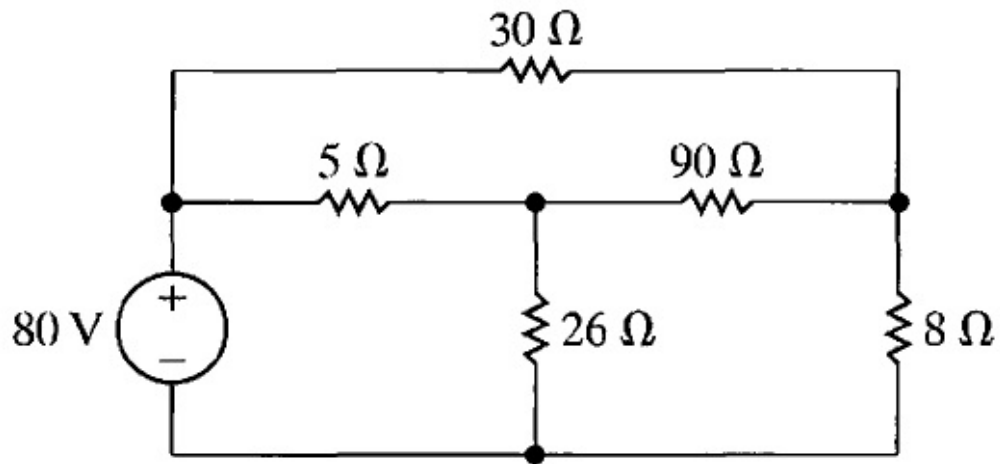|	
Started on	Monday, 17 October 2016, 12:14 AM
State	Finished
Completed on	Monday, 17 October 2016, 12:15 AM
Time taken	32 secs
Grade	**100.00** out of 100.00

Question 1

Correct

Mark 10.00 out of 10.00

AP4.07_9ed

Use the mesh-current method.

a) Find the power absorbed/delivered by the 80 V source to the circuit shown.

P_{80V} = -400 ✔ W

b) Find the power absorbed/delivered in the 8 Ω resistor.

$P_{8\Omega}$ = 50 ✔ W

Numeric Answers

a) P_{80V} = -400 W
b) $P_{8\Omega}$ = 50 W

Correct

Marks for this submission: 10.00/10.00.
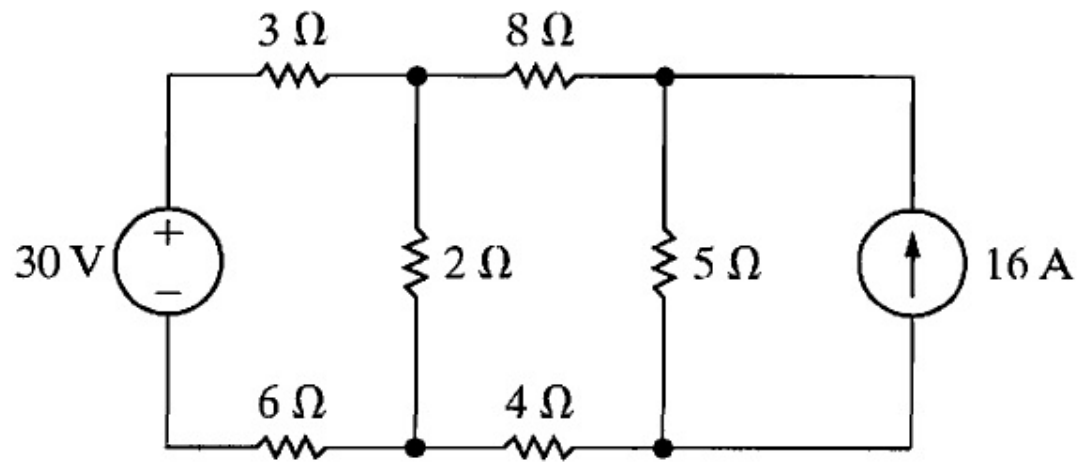
AP4.10_9ed

Use the mesh-current method to find the power dissipated in the 2 Ω (Ohm) resistor in the circuit shown
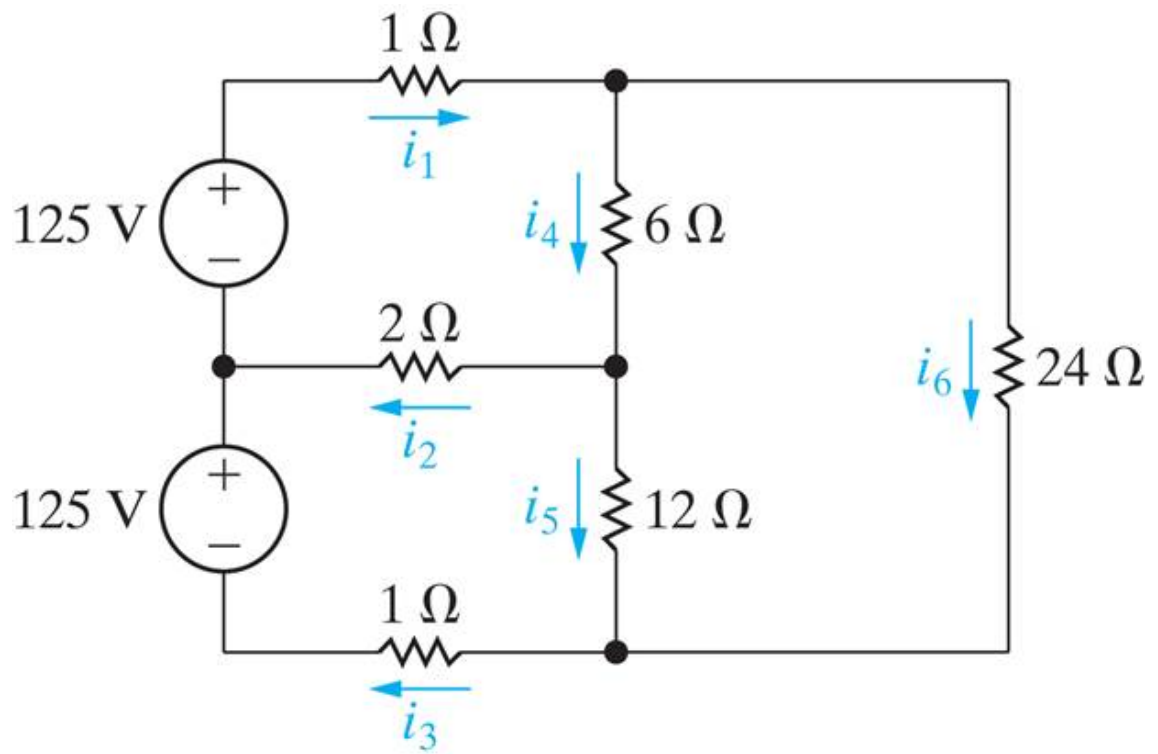
$P_{2\Omega}$ = [72] ✔ W

Numeric Answers

$P_{2\Omega}$ = 72 W

Correct

Marks for this submission: 10.00/10.00.

$1\ \Omega$

i_1

$125\ V$

$i_4 \downarrow\ \lessgtr 6\ \Omega$

$2\ \Omega$

$i_6 \downarrow\ \lessgtr 24\ \Omega$

i_2

$125\ V$

$i_5 \downarrow\ \lessgtr 12\ \Omega$

$1\ \Omega$

i_3

P4.34_10ed

Use the mesh-current method.

Find the power absorbed/delivered by the 24Ω (Ohm) resistor.

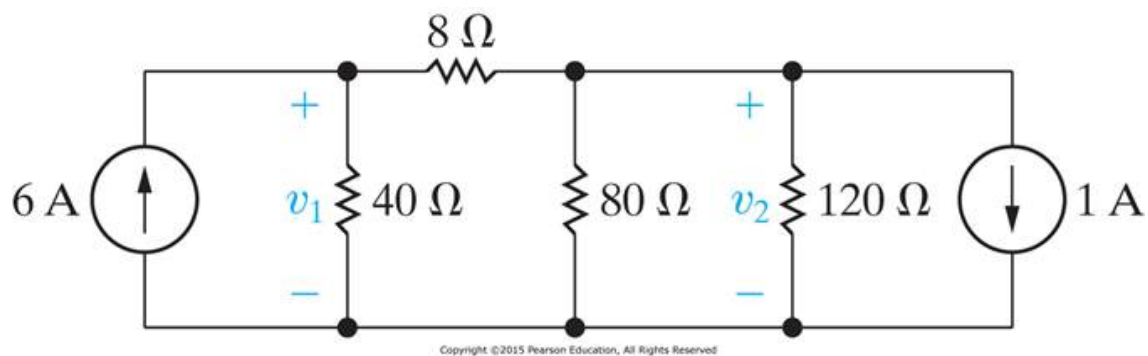$$P_{24\Omega} =\ \boxed{1799.47}\ \checkmark\ W$$

Numeric Answers

P_{24W} = 1,799.479 W absorbing

Correct

Marks for this submission: 10.00/10.00.
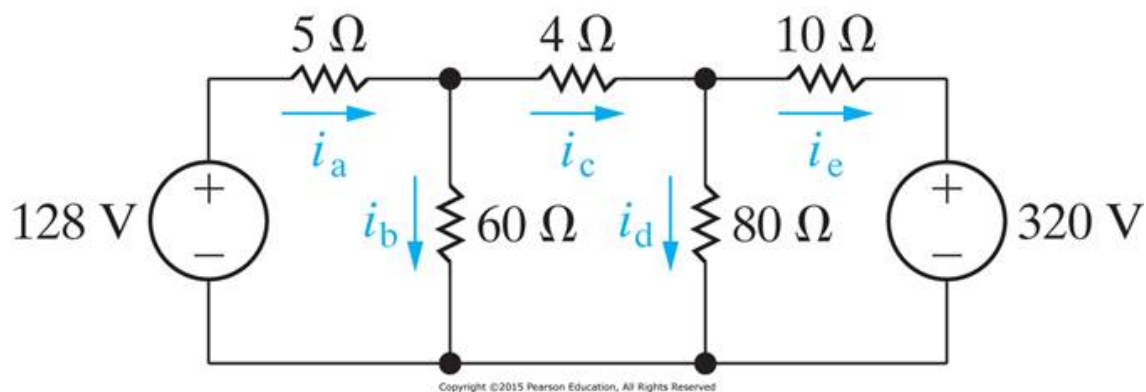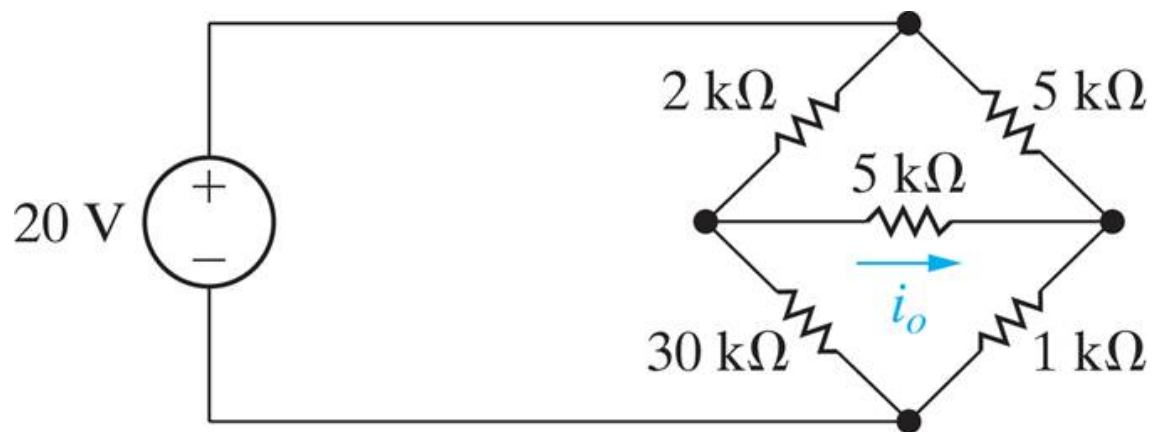
Question 4

Correct

Mark 10.00 out of 10.00

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P4.44_10ed

Find the voltages v_1 and v_2.

$v_1 = $ [120] ✓ V $v_2 = $ [96] ✓ V

Numeric Answers

$v_1 = $ 120 V

$v_2 = $ 96 V

Correct

Marks for this submission: 10.00/10.00.

$5\ \Omega$ $4\ \Omega$ $10\ \Omega$

i_a i_c i_e

128 V i_b $60\ \Omega$ i_d $80\ \Omega$ 320 V

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P4.33_10ed

Use the mesh-current method.

Find the power absorbed/delivered by the 60Ω (Ohm), and the 80Ω (Ohm) resistors.

$P_{60\Omega} =$ [437.4] ✓ W

$P_{80\Omega} =$ [500] ✓ W

Numeric Answers

$P_{60W} = 437.4$ W
$P_{80W} = 500$ W

Correct

Marks for this submission: 10.00/10.00.

Question 6

Correct

Mark 10.00 out of 10.00

2 kΩ   5 kΩ

5 kΩ

20 V i_o

30 kΩ   1 kΩ

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P4.35_10ed
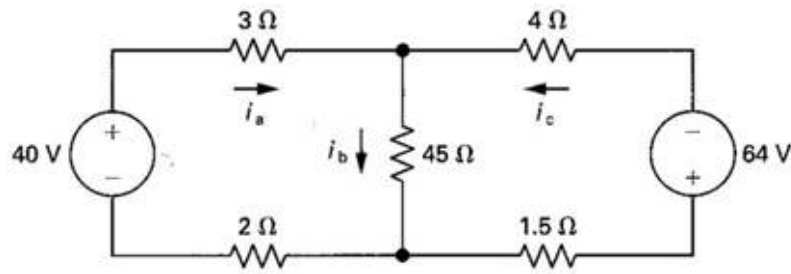
Use the mesh-current method.

Find the current i0 in the circuit.

i_0 = [2] ✓ mA (milli Amps)

Numeric Answers

i_0 = 2 mA

 Correct

Marks for this submission: 10.00/10.00.

P4.30_6ed

Use the mesh-current method.

Find the currents ia, ib and ic.

i_a = [9.8] ✓ A

i_b = [-.2] ✓ A

i_c = [-10] ✓ A

Numeric Answer

i_a = 9.80 A
i_b = -0.2 A
i_c = -10 A

Correct

Marks for this submission: 10.00/10.00.
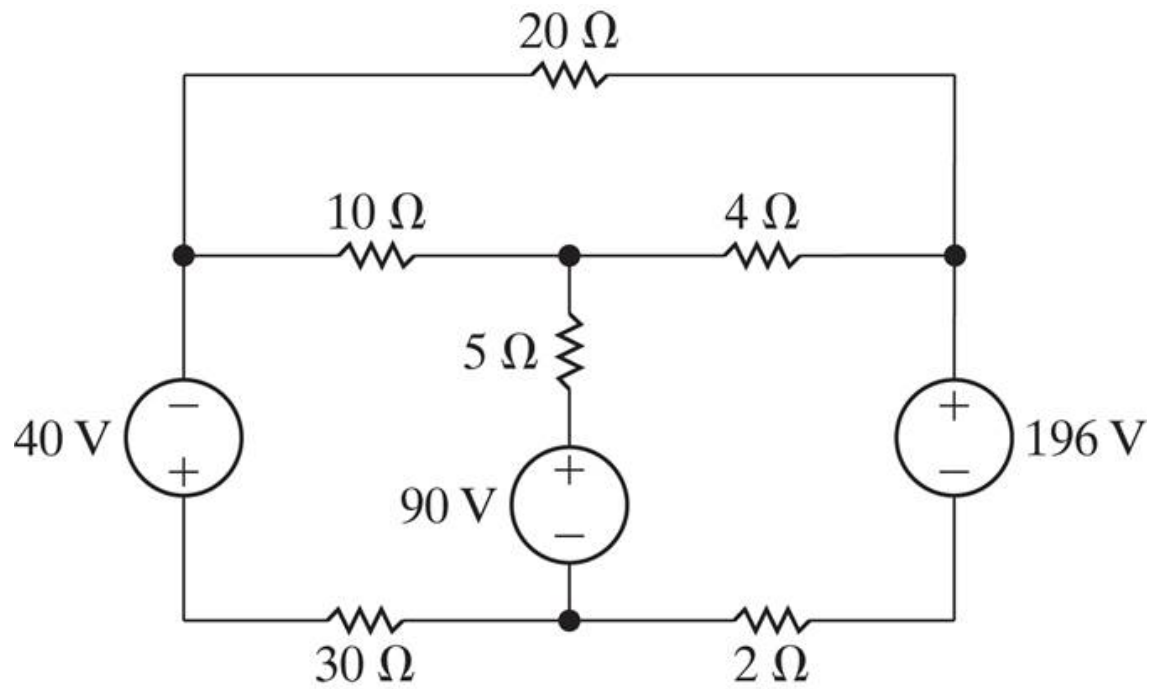
P4.36_10ed

Use the mesh-current method.

Find the current through the 196V source.
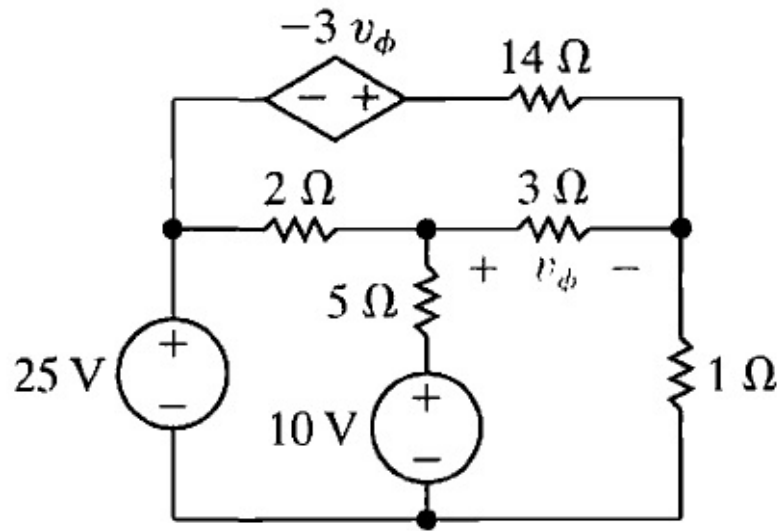
I_{196V} = | -13 | ✓ A

Numeric Answer

I_{96V} = -13 A

 Correct

Marks for this submission: 10.00/10.00.

AP4.08_9ed

Use the mesh-current method to find how much power is being absorbed/delivered by the dependent voltage source
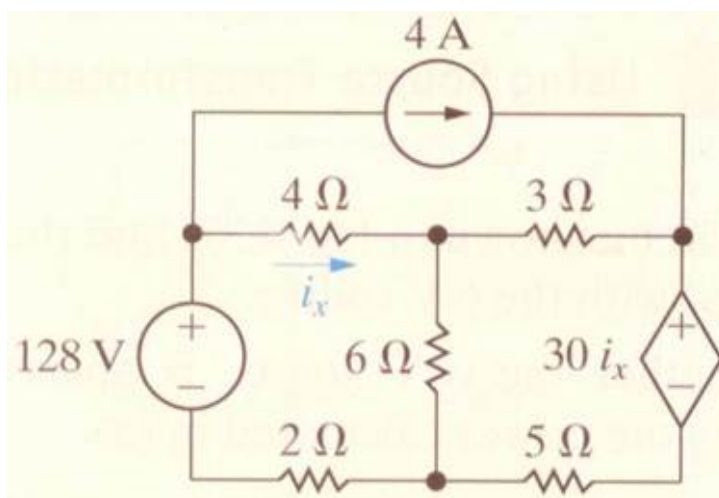
P_{dep} = [-36] ✓ W

Numeric Answers

P = -36 W   delivering

 Correct

Marks for this submission: 10.00/10.00.

AP4.14_9ed

Find the power absorbed/delivered by the 4 A current source in the circuit shown

P_{4A} = | -40 | ✓ W

"+" = absorbed "-" = delivered

Numeric Answer

P_{4A} = -40 W delivering

Correct

Marks for this submission: 10.00/10.00.