Home ► Electrical Engineering ► Engr17-2016F-Tatro ► Homework ► Homework 3 - Chap 2 & 3

Started on Friday, 16 September 2016, 6:42 PM

State Finished

Completed on Friday, 16 September 2016, 8:11 PM

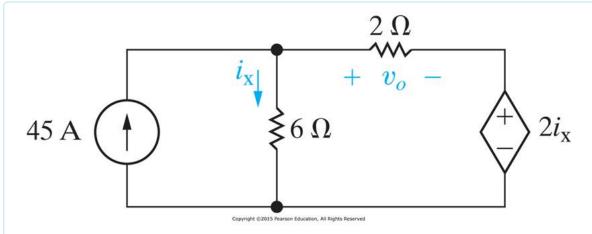
Time taken 1 hour 29 mins

Grade 100.00 out of 100.00

Question 1

Correct

Mark 10.00 out of 10.00



P2.32_10ed

a) Find v_0 .

b) Find the total power supplied in the circuit.

Numeric Answer

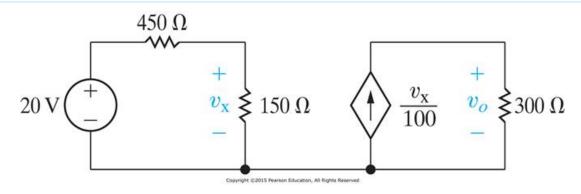
a)
$$v_0 = 60 \text{V}$$

b) $P_{del,total} = -4,050 \text{ Watts delivered}$

Correct

Correct

Mark 10.00 out of 10.00



P2.33_10ed

a) Find v_0 .

b) Find the total power supplied in the circuit.

Numeric Answer

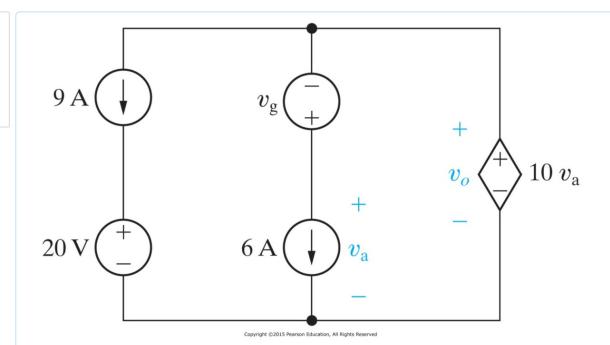
a)
$$v_0 = 15V$$

b)
$$P_{abs,total} = 1.417 \text{ Watts absorbed}$$

Correct

Correct

Mark 10.00 out of 10.00



P2.10_10ed

Given that $v_0 = 5$ Volts.

Find the total power delivered in the circuit. $P_{del,total} = ?? W$

Answer: ☐-210

Numeric Answer

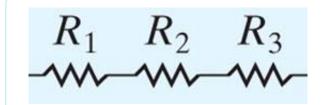
P_{del,total} = -210 Watts

The correct answer is: -210

Correct

Correct

Mark 10.00 out of 10.00



CQ3.01

Given:

 $\rm R^{}_1 = 272586\Omega$ (Ohms) $\rm \ R^{}_2 = 606509 \ \Omega$ (Ohms) $\rm \ R^{}_3 = 38397 \ \Omega$ (Ohms)

Find the equivalent resistance $R_{\rm Eq}$.

 $\boldsymbol{R}_{\text{Eq}}$ = ?? $\boldsymbol{\Omega}$ (Ohms)

Answer: 917492

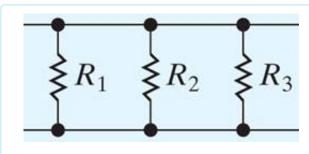
Calculated question

The correct answer is: 917492.00

Correct

Correct

Mark 10.00 out of 10.00



CQ3.02

Given:

$$\boldsymbol{R}_1 = 78901~\Omega$$
 (Ohms) $~\boldsymbol{R}_2 = 551073~\Omega$ (Ohms) $~\boldsymbol{R}_3 = 50892~\Omega$ (Ohms)

Find the equivalent resistance $\boldsymbol{R}_{\text{Eq}}.$

$$\boldsymbol{R}_{\text{Eq}}$$
 = ?? $\boldsymbol{\Omega}$ (Ohms)

Answer: 29293

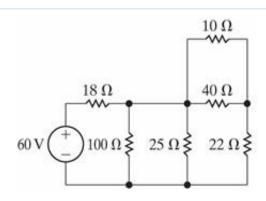
Calculated question

The correct answer is: 29292.69

Correct

Correct

Mark 10.00 out of 10.00



P3.04a_9ed

Find the equivalent resistance seen by the 60V voltage source.

$$R_{Eq} = ?? \Omega \text{ (Ohms)}$$

Answer: 30

Numeric Answer

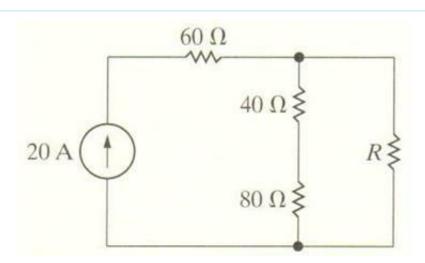
$$R_{Eq} = 30 \text{ W}$$

The correct answer is: 30

Correct

Correct

Mark 10.00 out of 10.00



AP3.03_9ed

a) Find the value of R that will cause 4 A of current to flow through the 80 Ω resistor in the circuit.

$$R = 30$$
 $\checkmark \Omega$ (Ohm)

b) How much power will the resistor R from part (a) need to dissipate?

c) How much power will the current source generate for the value of R from part (a)?

"-" = "delivering" and "+" = "absorbing"

Numeric Answer

a)
$$R = 30 \Omega$$

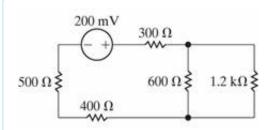
b)
$$P_{R} = 7680 \text{ W}$$

c)
$$P_{20A} = -33,600 \text{ W}$$

Correct

Correct

Mark 10.00 out of 10.00



P3.03c_9ed

Find the equivalent resistance seen by the 3 mA current source.

$$R_{Eq} = ?? \Omega \text{ (Ohms)}$$

Answer: 1600

Numeric Answer

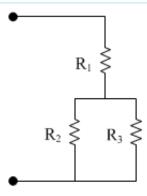
$$R_{Eq} = 1,600 W$$

The correct answer is: 1600

Correct

Correct

Mark 10.00 out of 10.00



CQ3.04

Given:

$$\boldsymbol{R}_1 = 150094~\Omega$$
 (Ohms) $\boldsymbol{R}_2 = 368546~\Omega$ (Ohms) $\boldsymbol{R}_3 = 79635~\Omega$ (Ohms)

Find the equivalent resistance R_{Eq} . $R_{Eq} = ?? \Omega$ (Ohms)

Answer: 215579.1

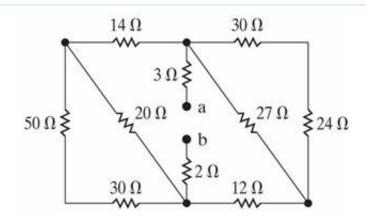
Calculated question

The correct answer is: 215579.06

Correct

Correct

Mark 10.00 out of 10.00



P3.06c_9ed

Find the equivalent resistance seen looking into terminals a,b.

$$R_{Eq} = ?? \Omega \text{ (Ohms)}$$

Answer: 20

Numeric Answer

$$R_{Eq} = 20 \Omega$$

The correct answer is: 20

Correct