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Started on Wednesday, 14 September 2016, 11:02 AM

State Finished

Completed on Wednesday, 14 September 2016, 11:42 AM

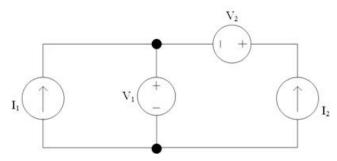
Time taken 39 mins 33 secs

Grade 83.33 out of 100.00

## Question 1

Correct

Mark 40.00 out of 40.00



Quiz 2-1

Given:  $I_1 = 11 \text{ Amps}$   $V_1 = 117 \text{ Volts}$   $I_2 = 11 \text{ Amps}$   $V_2 = 15 \text{ Volts}$ 

What is the current through the voltage source  $V_1$ ?

Answer: 22

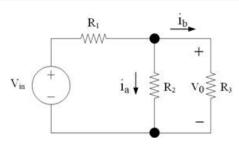
Calculated

The correct answer is: 22.00

## Question 2

Correct

Mark 43.33 out of 60.00



Quiz 2-2b

Given:  $V_{in} = 60 \text{ Volts}$ 

$$R_1 = 4 \Omega \text{ (Ohm)}$$
  $R_2 = 20 \Omega \text{ (Ohm)}$   $R_3 = 80 \Omega \text{ (Ohm)}$ 

a) Find the value of 
$$i_a$$
.  $i_a = \begin{bmatrix} 2.4 \\ \end{bmatrix}$ 

b) Find the value of 
$$v_0$$
.  $v_0 = 48$ 

c) Find the power dissipated in each resistor.

$$P_{R1} = \begin{bmatrix} 36 & \bigvee W & P_{R2} = \begin{bmatrix} 115.2 & \bigvee W & P_{R3} = \begin{bmatrix} 28.8 & \bigvee W \end{bmatrix} \end{bmatrix}$$

d) Find the power delivered by the  $\boldsymbol{V}_{in}$  source.

$$P_{Vin} = \boxed{-180}$$
  $\checkmark$  W

Remember: "-" = Delivering "+" = Absorbing

## **Numeric Answer**

- a)  $i_a = 2.40 \text{ A}$ b)  $v_0 = 48.0 \text{ V}$ c)  $P_{R1} = 36.0 \text{ W}$ d)  $P_{Vin} = -180.0 \text{ W}$   $P_{R2} = 115.20 \text{ W}$   $P_{R3} = 28.80 \text{ W}$