# Home ► Electrical Engineering ► Engr 17 F16 Tatro ► Homework ► Homework 8 - Chap 4

Started on Sunday, 23 October 2016, 3:34 PM

State Finished

Completed on Sunday, 23 October 2016, 3:36 PM

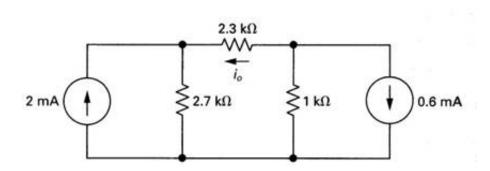
Time taken 1 min 32 secs

**Grade 90.00** out of 100.00

#### Question 1

Correct

Mark 10.00 out of 10.00



P4.52\_6ed

Use source transformations to:

a) Use Find the current  ${\rm i}_{\rm 0}$  through the 2.3 k $\Omega$  (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.

$$P_{0.6mA} = 240$$
  $\checkmark \mu W$  (micro Watt)

#### **Numeric Answers**

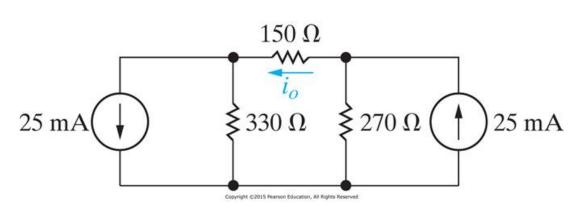
a) 
$$i_0 = -1.0 \text{ mA}$$

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

#### Correct

Correct

Mark 10.00 out of 10.00



P4.61\_10ed

Use source transformations to find the current  $\mathbf{i}_0$ .

$$i_0 = 20$$
  $\checkmark$  mA (milli Amp)

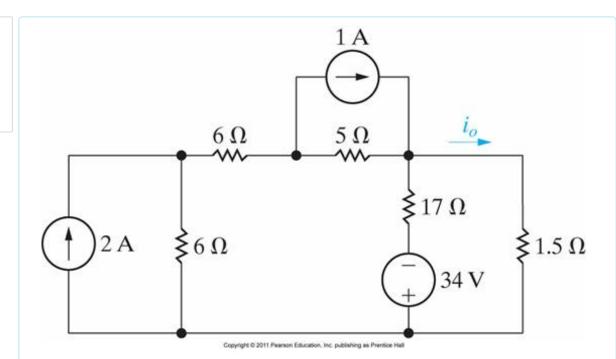
# **Numeric Answer**

$$i_0 = 20 \text{ mA}$$

### Correct

Correct

Mark 10.00 out of 10.00



P4.60\_9ed

Use source transformations to find the current  $i_0$ .

$$i_0 = \begin{bmatrix} -0.85 \end{bmatrix} \checkmark A$$

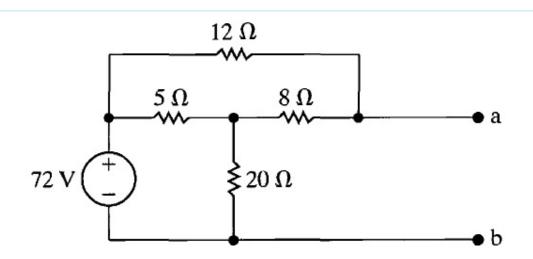
## **Numeric Answer**

$$i_0 = -0.85 A$$

### Correct

Correct

Mark 10.00 out of 10.00



AP4.16\_9ed

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

$$R_{Th} = \boxed{6}$$
 (Ohms)

## **Numeric Answer**

$$V_{Th} = 64.8 \ V$$

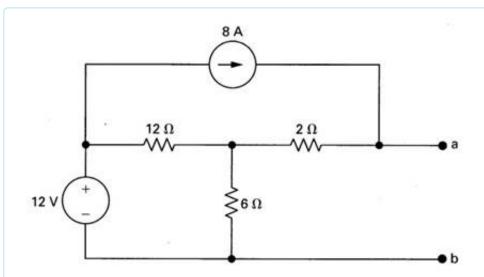
$$R_{Th}^{III} = 6 \Omega$$

### Correct

# ${\bf Question}~{\bf 5}$

Correct

Mark 10.00 out of 10.00



P4.59\_6ed

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

$$R_{Th} = \begin{bmatrix} 6 \end{bmatrix} \checkmark \Omega \text{ (Ohm)}$$

## **Numeric Answer**

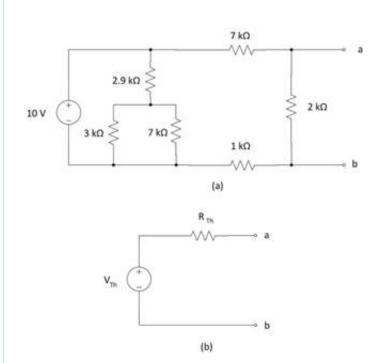
$$V_{Th} = 52 \text{ V}$$

$$R_{Th}^{III} = 6 \Omega \text{ (Ohm)}$$

### Correct

Incorrect

Mark 0.00 out of 10.00



AS4-02

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

Find the numerical values for  $\rm V_{Th}$  and  $\rm R_{Th}$ 

$$V_{Th} = \boxed{10}$$

$$R_{Th} = 0.57$$
  $\times$  k $\Omega$  (kilo Ohm)

## **Numeric Answer**

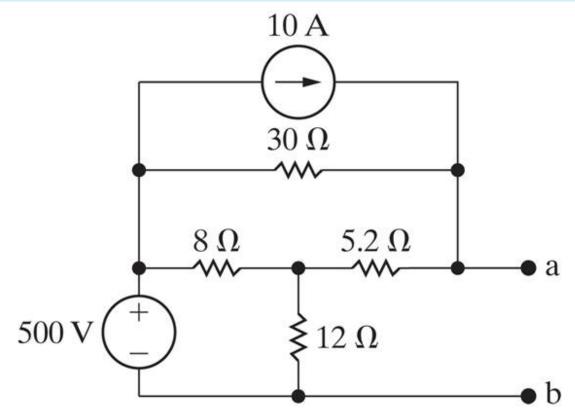
$$V_{\mathsf{Th}} = 2 \; \mathsf{V}$$

$$R_{\text{Th}}^{\text{III}} = 1.6 \text{ k}\Omega$$

### Incorrect

Correct

Mark 10.00 out of 10.00



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P4.67\_10ed

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

$$R_{Th} = \boxed{7.5}$$
  $\checkmark \Omega \text{ (Ohm)}$ 

### **Numeric Answer**

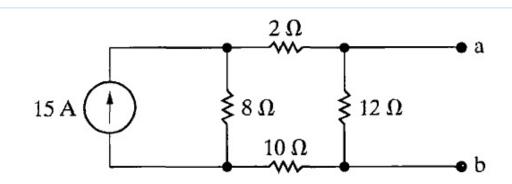
$$V_{Th} = 425 \text{ V}$$

$$V_{Th}^{}=425~V$$
  $R_{Th}^{}=7.5~\Omega$  (Ohm)

### Correct

Correct

Mark 10.00 out of 10.00



AP4.17\_9ed

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

$$I_N = 6$$
  $\checkmark$  A (current directed toward terminal a)

$$R_{N} = R_{Th} = \begin{bmatrix} 7.5 \end{bmatrix} \checkmark \Omega \text{ (Ohm)}$$

# **Numeric Answer**

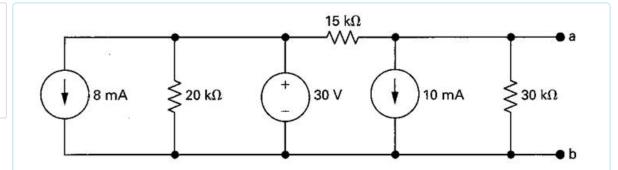
$$I_N = 6 A$$

$$R_{Th} = 7.5 \Omega$$

### Correct

Correct

Mark 10.00 out of 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".

$$I_N = \boxed{-8}$$
  $\checkmark$  mA (milli Amp)

$$R_{Th} = \boxed{10}$$
  $\checkmark$   $k\Omega$  (kilo Ohm)

## **Numeric Answer**

$$I_N = -8 \text{ mA}$$

$$R_{Th} = 10 \text{ k}\Omega \text{ (Ohm)}$$

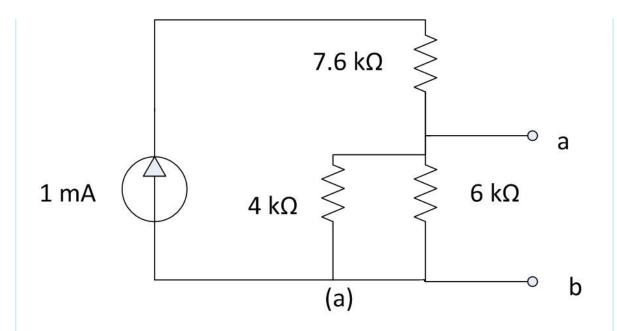
#### Correct

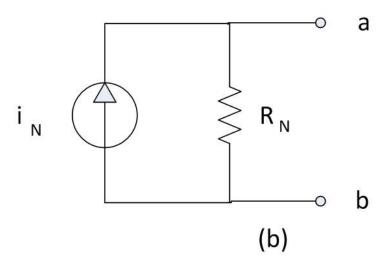
Marks for this submission: 10.00/10.00.

## Question 10

Correct

Mark 10.00 out of 10.00





## AS4-01

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

Find the numerical values for  $\boldsymbol{I}_{N}$  and  $\boldsymbol{R}_{N}.$ 

$$R_N = R_{Th} = 2.4$$
  $\langle k\Omega \text{ (kilo Ohm)} \rangle$ 

# **Numeric Answer**

$$I_{N} = 1 \text{ mA}$$
 $R_{N} = 2.4 \text{ k}\Omega$ 

#### Correct