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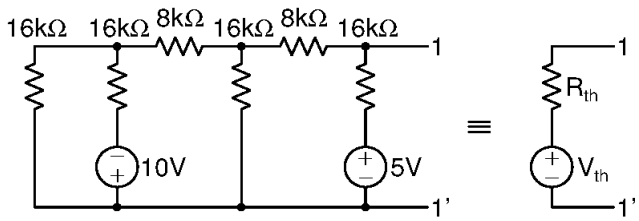
Unit 8 - Week 6: More circuit theorems; Two port parameters

Assignment 6

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2020-10-28, 23:59 IST.

1) 

Determine the voltage V_{th} in the circuit above.

(The answer must be in **volts (V)**. Round off fractional answers to two decimal places.)

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Range) 1.15,1.35

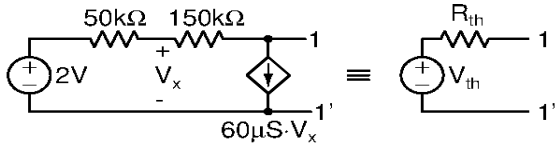
1 point

2) Determine the resistance R_{th} in the circuit above.

(The answer must be in **kilohms (kΩ)**. Round off fractional answers to one decimal place.)

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Range) 7.8,8.2

1 point

3) 

Determine the voltage V_{th} in the circuit above.

(The answer must be in **volts (V)**. Round off fractional answers to one decimal place.)

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Range) -4.2,-3.8

1 point

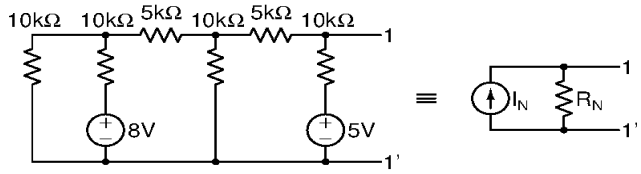
4) A positive resistance R_L is connected to the circuit above at 1-1'. What should be the value of R_L such that the maximum possible power is dissipated in it?

(The answer must be in **kilohms (kΩ)**. Round off fractional answers to one decimal place.)

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Range) 49.5,50.5

1 point

5)



Determine the current I_N in the circuit above.

(The answer must be in **milliamperes (mA)**. Round off fractional answers to one decimal place.)

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Range) 0.6,0.8

1 point

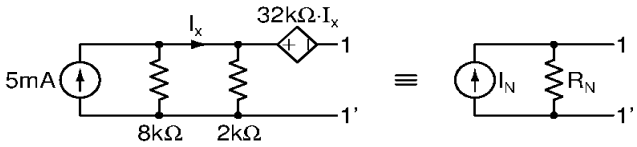
6) Determine the Norton equivalent resistance R_N in the circuit above.

(The answer must be in **kilohms (kΩ)**. Round off fractional answers to one decimal place.)

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Range) 4.9,5.1

1 point

7)



Determine the current I_N in the circuit above.

(The answer must be in **milliamperes (mA)**. Round off fractional answers to one decimal place.)

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Range) -15.5,-14.5

1 point

8) A positive resistance R_L is connected to the circuit above at 1-1'. What should be the value of R_L such that the maximum possible power is dissipated in it?

(The answer must be in **kilohms (kΩ)**. Round off fractional answers to one decimal place.)

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Range) 7.8,8.2

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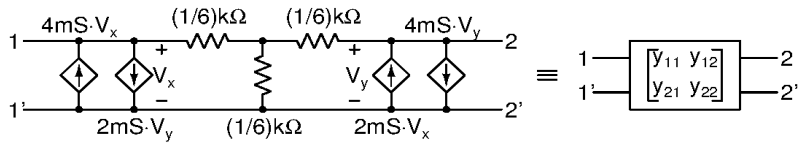
9)



Determine the y parameters of the circuit above. y_{ij}'s are the numerical values of the y-parameters in **millisiemens (mS).**

e.g. For the matrix: $\begin{bmatrix} 2\,mS & 1\,mS \\ -1\,mS & 0 \end{bmatrix}$,
$y_{11} = 2; y_{12} = 1; y_{21} = -1; y_{22} = 0;$
$y_{12} \times y_{21} = -1$

The answer is the value of the expression given below:

$$y_{11} + y_{12} + (y_{21} \times y_{22})$$

(Round off fractional answers to one decimal place.)

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Range) -32.5,-31.5

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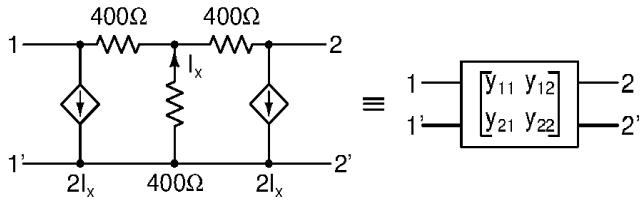
10)



Determine the y parameters of the circuit above. y_{ij}'s are the numerical values of the y-parameters in **millisiemens (mS).**

e.g. For the matrix: $\begin{bmatrix} 2\,mS & 1\,mS \\ -1\,mS & 0 \end{bmatrix}$,
$y_{11} = 2; y_{12} = 1; y_{21} = -1; y_{22} = 0;$
$y_{12} \times y_{21} = -1$

The answer is the value of the expression given below:

$$y_{12} + y_{21} + (y_{11} \times y_{22})$$

(Round off fractional answers to one decimal place.)

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: Range) -5.5,-4.5

1 point