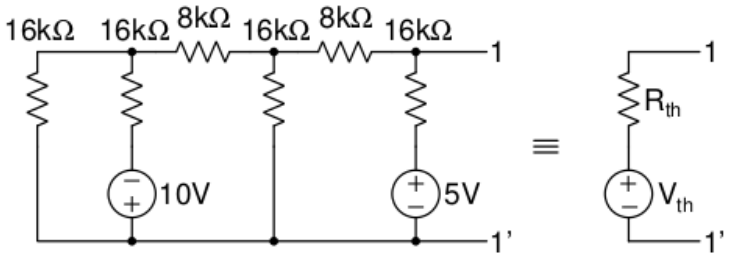
X

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

Assignment 6

The due date for submitting this assignment has passed. **Due on 2018-09-12, 23:59 IST.**
As per our records you have not submitted this assignment.

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: Numeric) 1.25

1 point

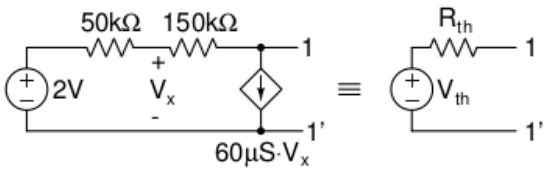
2)

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

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

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: Numeric) -4

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?

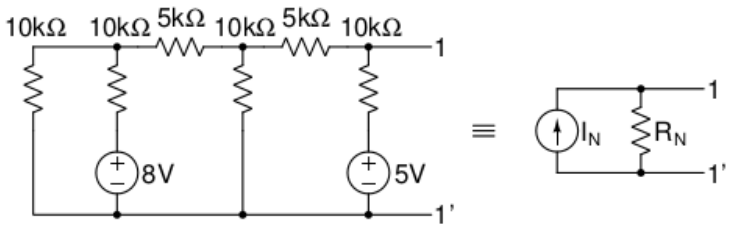
(The answer must be in **kilohms (kΩ)**. Round off fractional answers to one decimal place.)

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: Numeric) 50

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: Numeric) 0.7

1 point

6)

Determine the Norton equivalent resistance R_N in the circuit above.

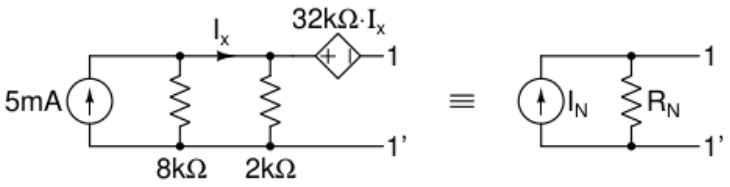
(The answer must be in **kilohms (kΩ)**. Round off fractional answers to one decimal place.)

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: Numeric) 5

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: Numeric) -15

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?

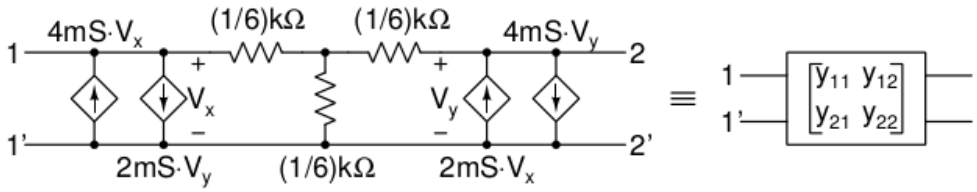
(The answer must be in **kilohms (kΩ)**. Round off fractional answers to one decimal place.)

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: Numeric) 8

1 point

9)



Determine the *y*-parameters of the circuit above.

Enter the *y*-parameter matrix in the space provided below, one row on each line. e.g. if the *y*-parameter matrix is as shown below,

$$[Y] = \begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix}$$

you should enter
1 2
3 4

In the matrix entry,
Do not have any space at the start of the line
Have exactly one space between entries on each row
Do not have any space after the last entry in each row
Do not have any trailing zeros, i.e., do not write 5.5 as 5.50 or 5 as 5.0

(The *y*-parameter matrix entries should be in **millisiemens (mS)**. Round off fractional answers to one decimal place.)

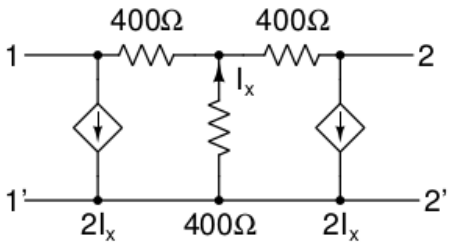
Hint

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: String) 0 0;-4 8

1 point

10)



Determine the *y*-parameters of the circuit above.

Enter the *y*-parameter matrix in the space provided below, one row on each line. e.g. if the *y*-parameter matrix is as shown below,

$$[Y] = \begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix}$$

you should enter

1 2

3 4

In the matrix entry,

Do not have any space at the start of the line

Have exactly one space between entries on each row

Do not have any space after the last entry in each row

Do not have any trailing zeros, i.e., do not write 5.5 as 5.50 or 5 as 5.0

(The *y*-parameter matrix entries should be in **millisiemens (mS)**. Round off fractional answers to one decimal place.)

Hint

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: String) 0 -2.5;-2.5 0

1 point

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