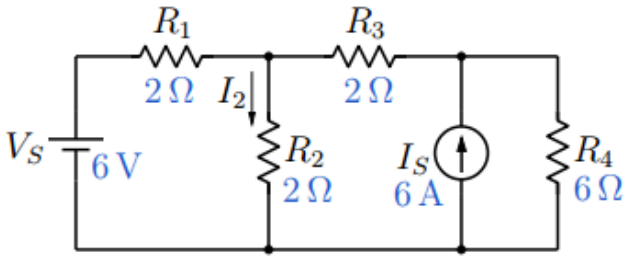
Unit 2 - Week 1

Assignment 1

The due date for submitting this assignment has passed. Due on 2018-02-05, 23:59 IST.
As per our records you have not submitted this assignment.

1) In the circuit shown in the figure, we want to obtain I_2 using superposition. What is I_2 when V_S is included and I_S deactivated? ***1 point***

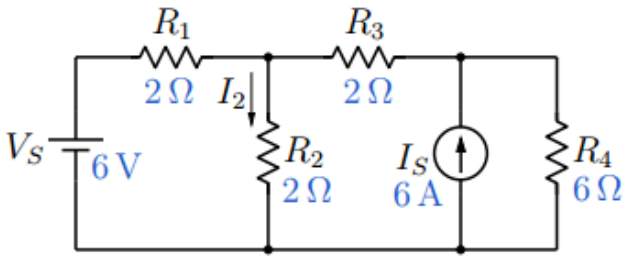


- $\frac{1}{3}A$
- $\frac{4}{3}A$
- $\frac{3}{4}A$
- $\frac{3}{2}A$

No, the answer is incorrect.
Score: 0

Accepted Answers:
$\frac{4}{3}A$

2) For the circuit of Q-1, what is I_2 when I_S is included and V_S deactivated? ***1 point***



- $2A$
- $\frac{5}{2}A$

Week 9
Week 10
Week 11
Week 12

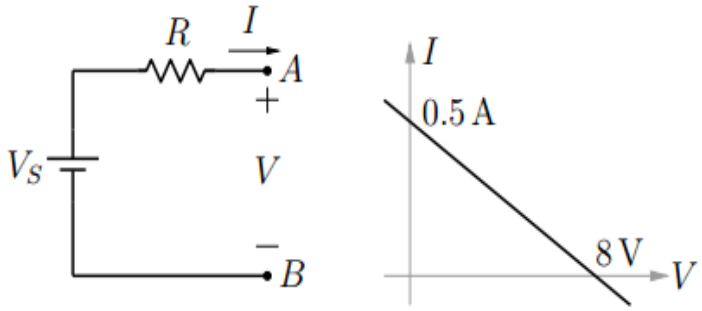
$3A$

$\frac{3}{2}A$

No, the answer is incorrect.
Score: 0

Accepted Answers:
$2A$

3) The figure shows a circuit along with the relationship between the current I and the voltage V. If the resistance $R = 8\Omega$ is connected between A and B, it would draw a current of *1 po*



$0.25A$

$0.33A$

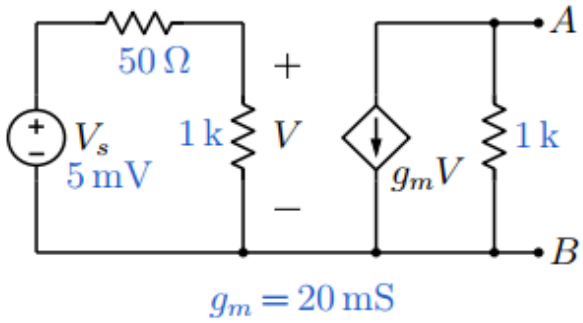
$0.125A$

$0.67A$

No, the answer is incorrect.
Score: 0

Accepted Answers:
$0.33A$

4) In the circuit shown in the figure, what is the magnitude of the Thevenin voltage as seen from AB? ***1 point***



$45.5mA$

$75.6mA$

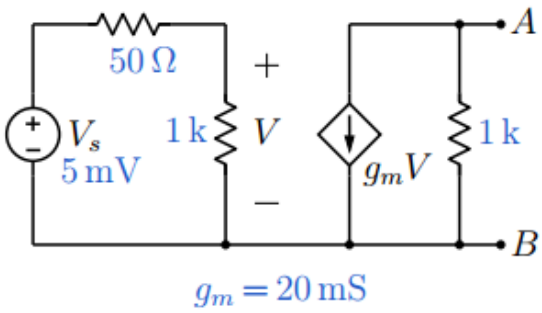
$110mV$

$95.2mV$

No, the answer is incorrect.
Score: 0

Accepted Answers:
$95.2mV$

5) In the circuit of Q-4, what is the Thevenin resistance as seen from AB? *1 point*

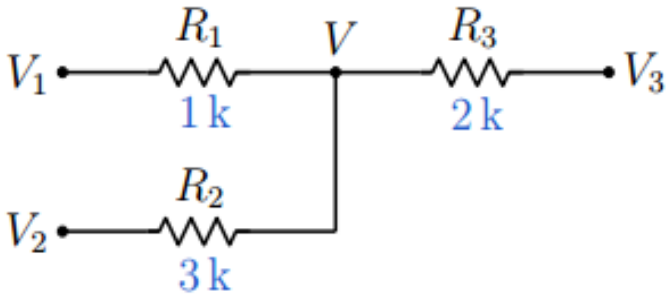


- 0.5Ω
- 49Ω
- $1k\Omega$
- $2k\Omega$

No, the answer is incorrect.
Score: 0

Accepted Answers:
$1k\Omega$

6) The voltage V in the figure is given by $V = k_1V_1 + k_2V_2 + k_3V_3$. The constant k_1, k_2, k_3 are, respectively, *1 point*



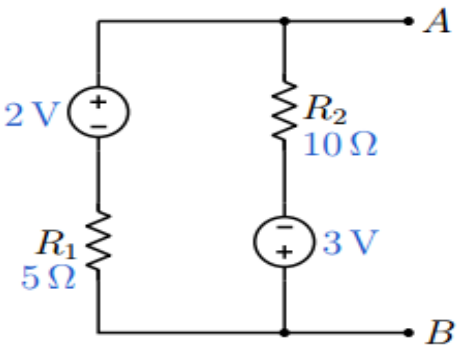
- $\frac{3}{11}, \frac{2}{11}, \frac{6}{11}$
- $\frac{3}{11}, \frac{1}{11}, \frac{6}{11}$
- $\frac{6}{11}, \frac{2}{11}, \frac{3}{11}$
- $\frac{3}{11}, \frac{4}{11}, \frac{6}{11}$

No, the answer is incorrect.
Score: 0

Accepted Answers:
$\frac{6}{11}, \frac{2}{11}, \frac{3}{11}$

7) *1 point*

For the circuit shown in the figure, what is the Thevenin voltage seen from AB?

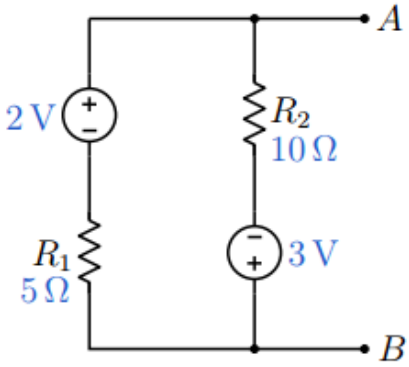


- $-0.8V$
- $-1V$
- $1.5V$
- $0.33V$

No, the answer is incorrect.
Score: 0

Accepted Answers:
$0.33V$

8) In the circuit of Q-7, what is the Thevenin resistance as seen from AB? ***1 point***

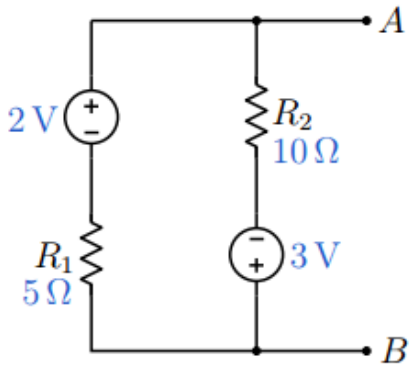


- 15 Ω
- 3.33 Ω
- 6.7 Ω
- 10 Ω

No, the answer is incorrect.
Score: 0

Accepted Answers:
3.33 Ω

9) What is the maximum power available from the network of Q-7? *1 point*

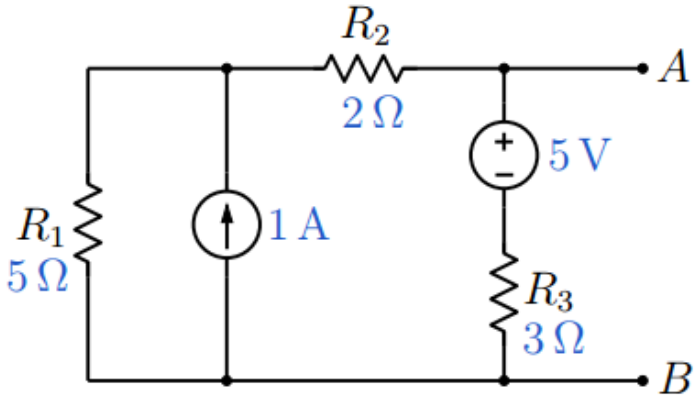


- 75 mW
- 8.3 mW
- 120 mW
- 24.6 mW

No, the answer is incorrect.
Score: 0

Accepted Answers:
8.3 mW

10)In the circuit shown in the figure, what is the Thevenin resistance as seen from AB? *1 point*



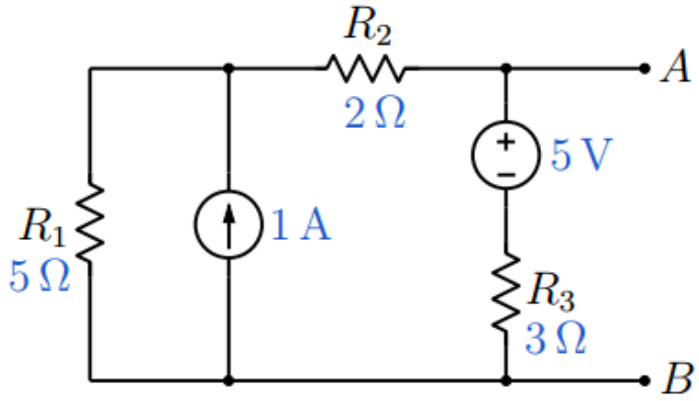
- 10 Ω
- 4.8 Ω
- 2.5 Ω
- 2.1 Ω

No, the answer is incorrect.
Score: 0

Accepted Answers:
2.1 Ω

11) *1 point*

In the circuit of Q-10, what is the Norton current I_N as seen from AB ?

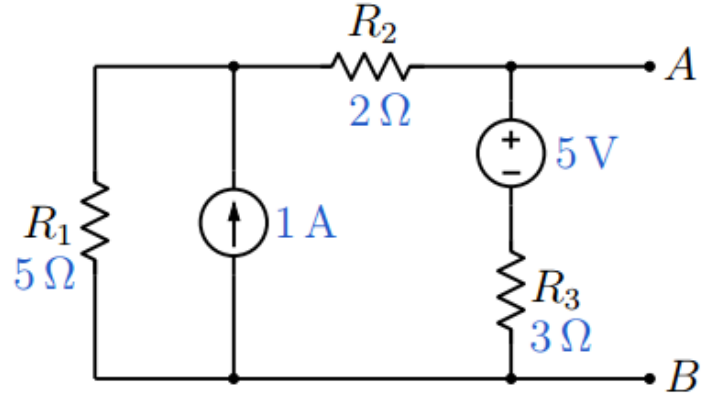


- $2.4\ A$
- $1.8\ A$
- $3.5\ A$
- $4.2\ A$

No, the answer is incorrect.
Score: 0

Accepted Answers:
$2.4\ A$

12) What is the maximum power available from the network of Q-10? ***1 point***



- $1.8\ W$
- $2.4\ W$
- $3\ W$
- $4.5\ W$

No, the answer is incorrect.
Score: 0

Accepted Answers:
$3\ W$

13) The time-domain quantity corresponding to the phasor $X = 1 - j3$ is given by $A\ \cos\left(\omega t + \theta\right)$. A and θ are given by ***1 point***

$A = 2.24,\ \theta = -18.4^o$

$A = 3.16,\ \theta = 18.4^o$

$A = 0.32,\ \theta = 25.8^o$

$A = 3.16,\ \theta = -71.6^o$

No, the answer is incorrect.
Score: 0

Accepted Answers:
$A = 3.16,\ \theta = -71.6^o$

14) The impedance presented by an inductor with $L = 6mH$ at a frequency $f = 2.5kHz$ is *1 po*

$j47\ \Omega$

$j68\ \Omega$

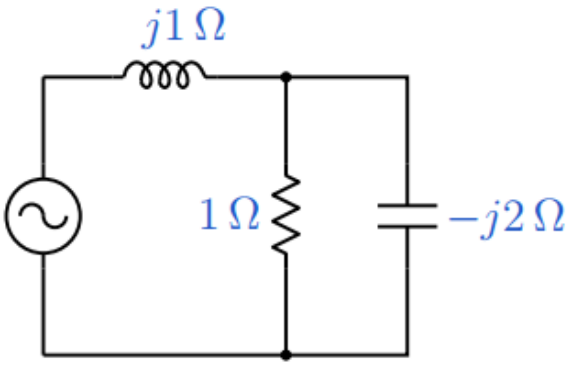
$j94\ \Omega$

$j126\ \Omega$

No, the answer is incorrect.
Score: 0

Accepted Answers:
$j94\ \Omega$

15) In the circuit shown in the figure, what is the impedance seen by the source? ***1 point***



$0.8 + j0.6\ \Omega$

$1\angle 53^o\ \Omega$

$1 + j1.5\ \Omega$

$1.4\angle 37^o\ \Omega$

No, the answer is incorrect.
Score: 0

Accepted Answers:
$0.8 + j0.6\ \Omega$

Previous Page End