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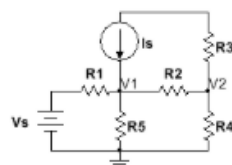
## Module 3 Quiz

LATEST SUBMISSION GRADE

100%

1. In the below circuit,  $V_S = 12V$ ,  $I_S = .05A$ ,  $R_1 = R_4 = R_5 = 1k\Omega$ , and  $R_2 = R_3 = 2k\Omega$ .

1 / 1 point



What is the value of the node voltage  $V_1$ ? Find the value in volts and omit the units from your answer.

19.42

✓ Correct

2. In the circuit from Question 1, what is the value of the node voltage  $V_2$ ? Find the value in volts and omit the units from your answer.

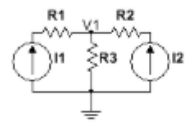
1 / 1 point

-26.85

✓ Correct

3. In the below circuit,  $I_1 = 24\text{mA}$ ,  $I_2 = 50\text{mA}$ ,  $R_1 = 100\Omega$ ,  $R_2 = 500\Omega$  and  $R_3 = 1000\Omega$ .

1 / 1 point



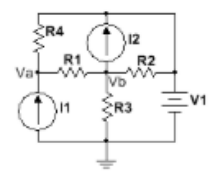
What is the value of the node voltage  $V_1$ ? Find the value in volts and omit the units from your answer.

74

✓ Correct

4. In the below circuit,  $I_1 = 10\text{mA}$ ,  $I_2 = 30\text{mA}$ ,  $V_1 = 10\text{V}$ ,  $R_1 = 800\Omega$ ,  $R_2 = 100\Omega$ ,  $R_3 = 300\Omega$  and  $R_4 = 1\text{k}\Omega$ .

1 / 1 point



What is the node voltage  $V_a$ ? Find the value in volts and omit the units from your answer.

12.133

✓ Correct

5. In the circuit from Question 4, what is the node voltage  $V_b$ ? Find the value in volts and omit the units from your answer.

1 / 1 point

5.84

✓ Correct

6. In the circuit from Question 4, what is the magnitude of the current provided by the voltage source? Find the value in milliamps and omit the units from your answer.

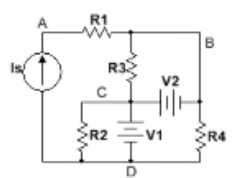
1 / 1 point

9.46

✓ Correct

7. In the below circuit,  $I_S = 50\text{mA}$ ,  $V_1 = 3\text{V}$ ,  $V_2 = 6\text{V}$ ,  $R_1 = 100\Omega$ ,  $R_2 = 300\Omega$ ,  $R_3 = 250\Omega$  and  $R_4 = 50\Omega$ .

1 / 1 point



At which node should the ground be placed in order to minimize the number of unknown node voltages?

- ☐ A
- ☐ B
- ☒ C
- ☐ D

8. In the circuit from Question 7, what is  $V_{AD}$ ? Find the value in volts and omit the units from your answer.

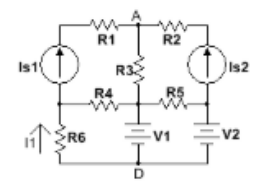
1 / 1 point

2

✓ Correct

9. In the below circuit,  $I_{S1} = 10\text{mA}$ ,  $I_{S2} = 20\text{mA}$ ,  $V_1 = 3\text{V}$ ,  $V_2 = 6\text{V}$ ,  $R_1 = R_5 = R_6 = 100\Omega$  and  $R_2 = R_3 = R_4 = 50\Omega$

1 / 1 point



What is the value of the current  $I_1$  going up through  $R_6$ ? Find the value in milliamps and omit the units from your answer.

-16.66

✓ Correct

10. In the circuit from Question 9, what is the value of  $V_{AD}$ ? Find the value in volts and omit the units from your answer.

1 / 1 point

4.5

✓ Correct