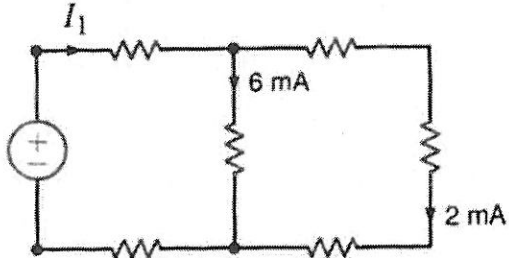


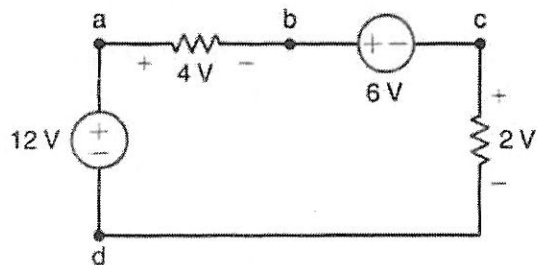
ECE 222 Spring 2016 Quiz #0

1. Find I_1 in the network below.



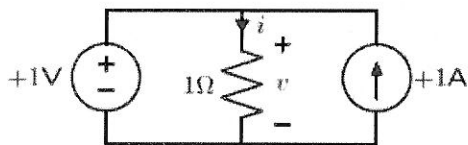
- A. -6mA
- B. -8mA
- C. 6mA
- D. 8mA
- E. None of the above

2. Find V_{bd} in the circuit below.



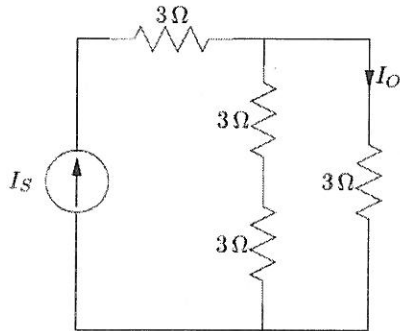
- A. 8V
- B. 10V
- C. 12V
- D. 16V
- E. None of the above

3. What is the current through the resistor below?



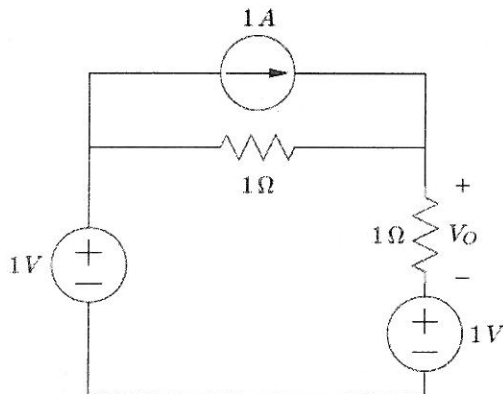
- A. 1 A
- B. 2 A
- C. 0 A
- D. cannot determine
- E. none of the above

4. Find $\frac{I_o}{I_s}$ in the circuit below.



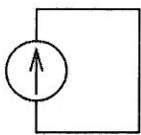
- A. $1/4$
- B. $1/3$
- C. $1/2$
- D. $2/3$
- E. $3/4$

5. Find V_o in the circuit below.

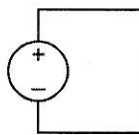


- A. $-3/2$ V
- B. $-1/2$ V
- C. 0 V
- D. $1/2$ V
- E. $3/2$ V

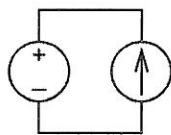
6. In general, which of the following is not a valid circuit configuration?



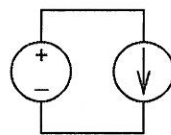
a)



b)

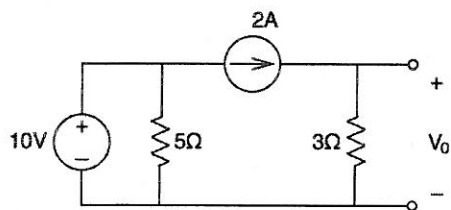


c)



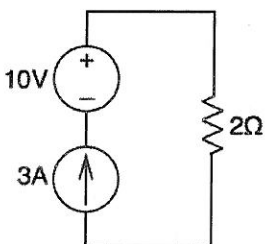
d)

7. In the circuit below, in the process of applying superposition, find the contribution to the voltage V_0 due to the 10V source alone.



- A. 10V
- B. $15/4$ V
- C. 6V
- D. $25/4$ V
- E. 0V

8. In the circuit below, find the (absolute value of) the power in the current source.

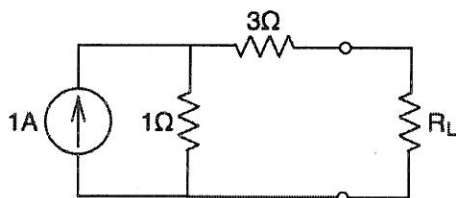


- A. 12W
- B. 30W
- C. 4.5W
- D. 0W
- E. None of the above

9. With reference to the circuit in problem 8 above, does the current source deliver or absorb power?

- A. deliver
- B. absorb

10. In the circuit below, find the value of R_L that maximizes the power delivered.



- A. $3/4\Omega$
- B. 3Ω
- C. 4Ω
- D. 1Ω
- E. None of the above