



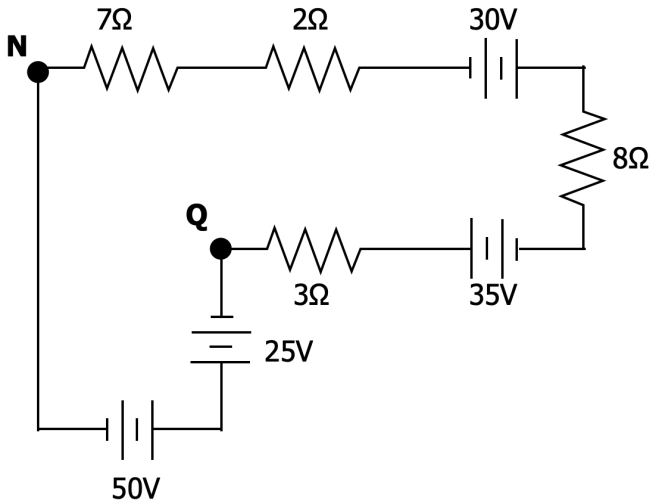
4. What is the value of the resistor on the left?ANSWER _____

5. What is the power used by the 6 V battery?ANSWER _____

6. What is the power dissipated as thermal energy by the 4 Ω resistor?ANSWER _____

7. What is the magnitude of the potential difference from location U to W, "V_{UW}?" if you travel in a clockwise direction from "U?"  ANSWER _____

8. What is the magnitude of the potential difference from location U to W, "V_{UW}?" if you travel in a counterclockwise direction from "U?"  ANSWER _____



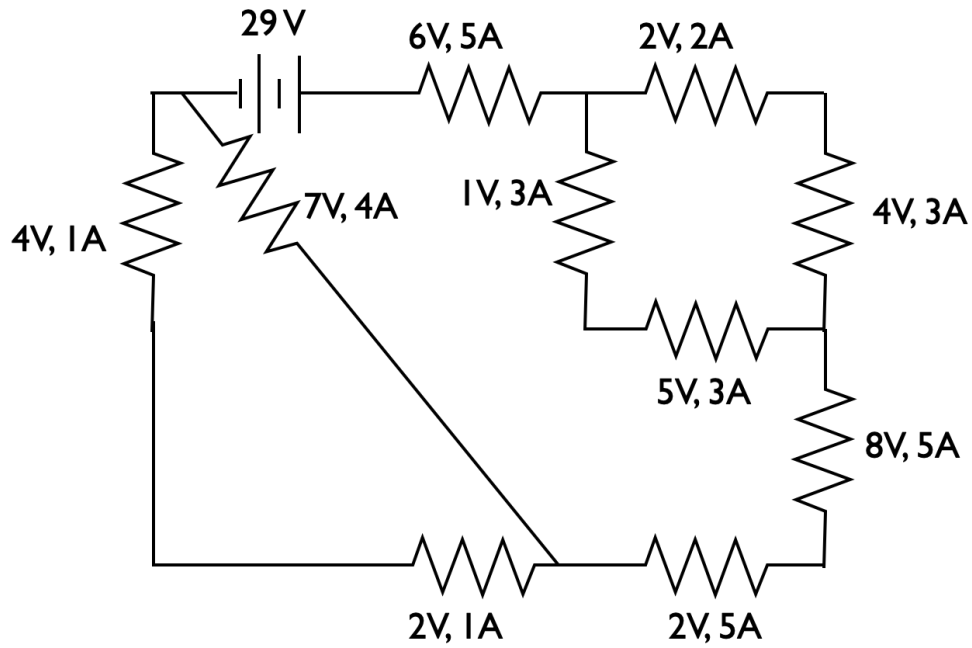
9. What the magnitude and direction of the current in the circuit above?ANSWER _____

10. What is the direction of the current in the 3Ω resistor?ANSWER _____

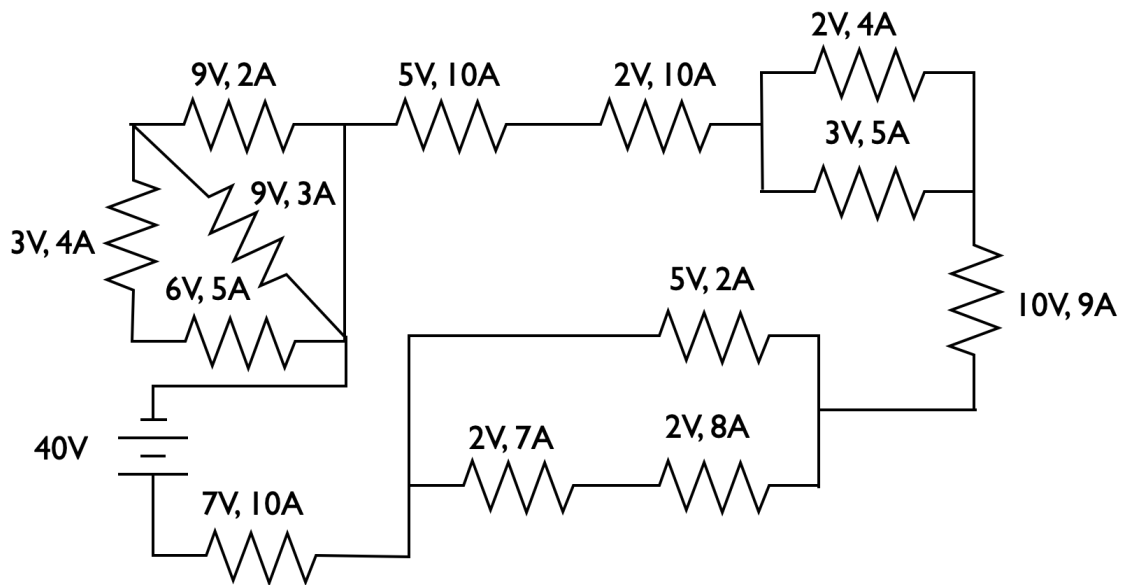
11. What is the magnitude of the potential difference from location Q to N, " V_{QN} ?" if you travel in a clockwise direction from "Q?" \curvearrowright
 ANSWER _____

12. What is the magnitude of the potential difference from location Q to N, " V_{QN} ?" if you travel in a counterclockwise direction from "Q?"
 ANSWER _____

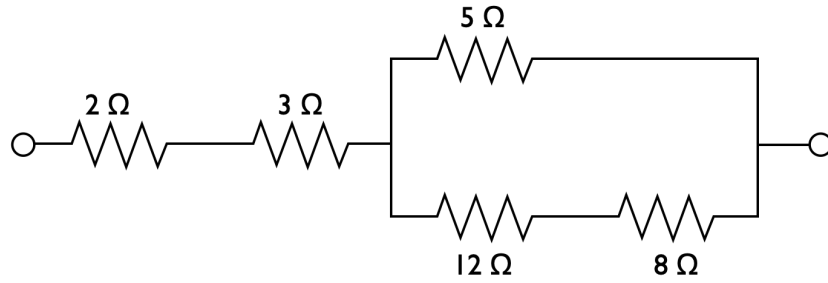
13. Using the concepts associated with electrical circuits, find the errors in the circuit below.



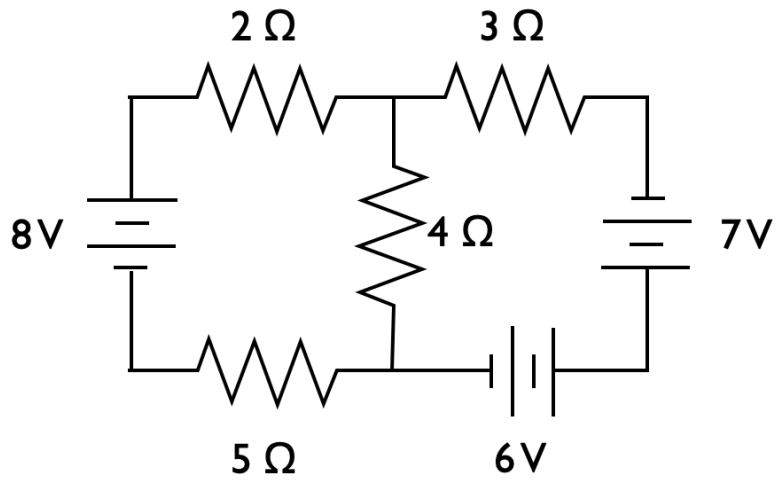
14. Using the concepts associated with electrical circuits, find the errors in the circuit below.



15. If the circuit below was to be replaced by one resistor, what would its value be?



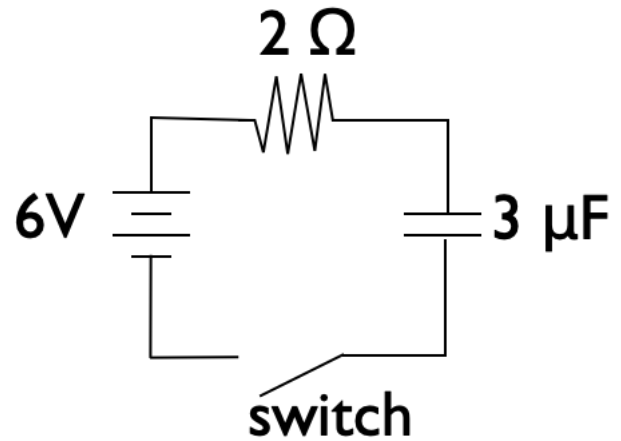
16. Use Kirchoff's Laws to determine the direction of the current in each resistor in the circuit below?



Resistor ->	2 Ω	3 Ω	4 Ω	5 Ω
Direction				

17. Fill out the table below based on the circuit shown to the right.

"Transient" State	"Steady" State
$t \sim 0$	$t = \infty$
$V_R =$	$V_R =$
$V_C =$	$V_C =$
$I =$	$I =$
$Q_C =$	$Q_C =$



18. The instant the switch is closed on the RC circuit above, the capacitor shows no effect on the circuit's values. Explain why.

19. After a very long time the resistor shows no effect on the RC circuit. Explain why.