

Name _____ PHY2049C, Practice Quiz 5

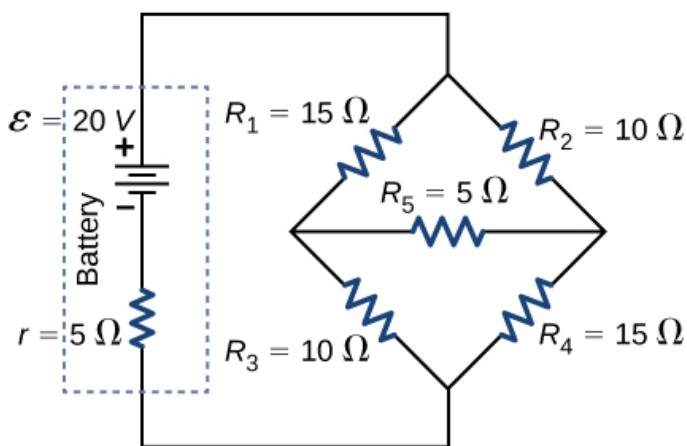
A- Read all the quiz once, or twice, before beginning to write. Make sure to comprehend all questions and start with those you feel most confident.

B – Be clear and concise. There are no extra points for being verbose or writing extra.

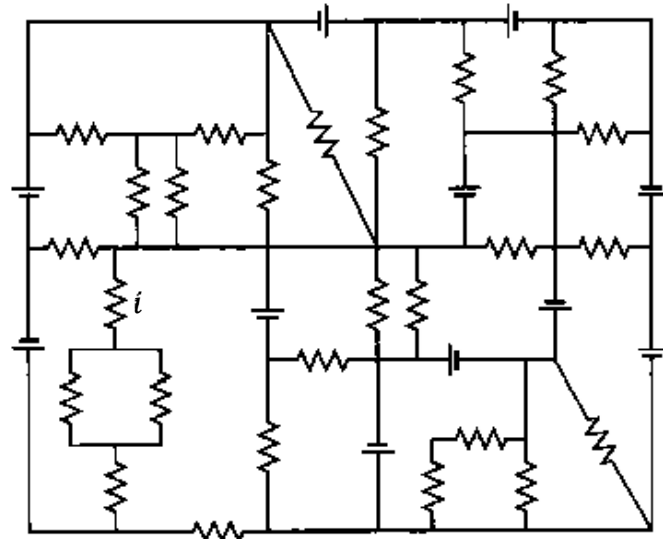
C – Only use the white pages that I will provide. You have 60 minutes to answer the quiz.

Problem 1 (OpenStax)

Consider the circuit shown below (to the left). (a) Find the current through each resistor. (b) Check the calculations by analyzing the power in the circuit.



Problem 1



Problem 2

Problem 2 (Halladay, Resnik)

What are the (a) size and (b) direction (up or down) of current i in the circuit above (to the right), where all resistances are $4.0\ \Omega$ and all batteries are ideal and have an emf of 10 V ?

Problem 3

At first, the ratio of the number of teachers to the number of students in a school is $2 : 25$. Then two teachers quit, and the ratio becomes $3 : 50$. What was the initial number of students?