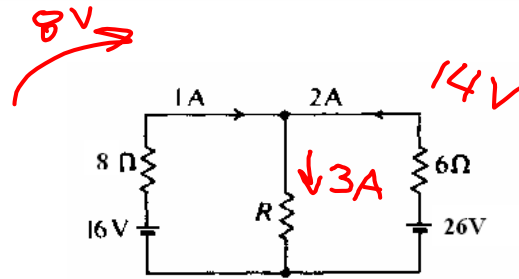


HW

Lab Day mc #1-3
and Free Response

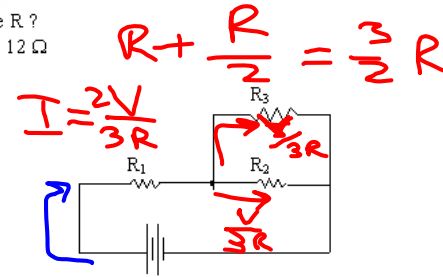
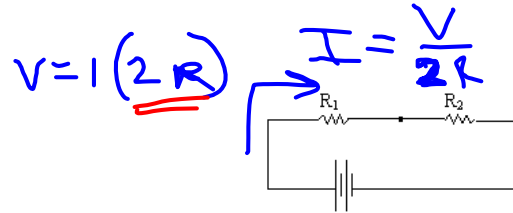


$$\frac{1}{3} + \frac{1}{14}$$

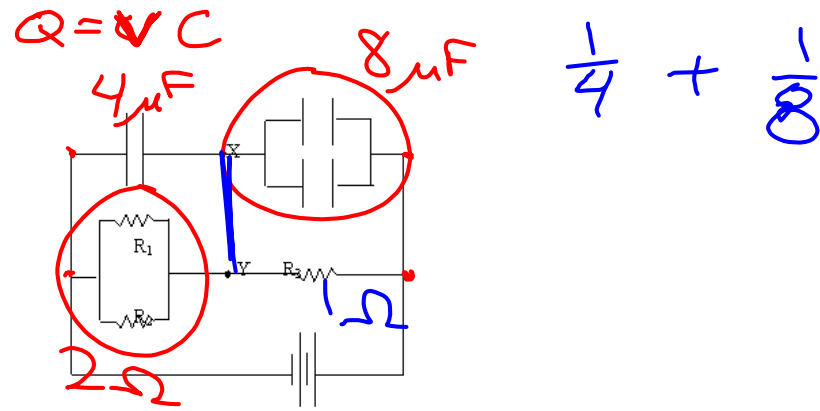
Lab Days mc Name _____

$$V = 5.09V$$

1. In the circuit shown above, what is the resistance R?
 a. 3 Ω b. 4 Ω c. 6 Ω d. 8 Ω e. 12 Ω



2. There three resistors all with the same resistance. Resistors R_1 and R_2 are connected in series a potential difference is applied and they have a current established through them. Later a third resistor R_3 is added in parallel to R_2 . What can be said about the currents through R_1 and R_2 ?
- a) The current through R_1 increased and the current through R_2 increased.
 b) The current through R_1 increased and the current through R_2 decreased.
 c) The current through R_1 decreased and the current through R_2 decreased.



3. In the diagram above all the capacitors have a value of $4\mu F$, and resistors R_1 and R_2 have a value of 4Ω . What must the value of resistor R_3 to make the points X and Y have a potential difference of zero volts?

- i. 1Ω
- ii. 2Ω
- iii. 4Ω
- iv. 8Ω
- v. 16Ω

