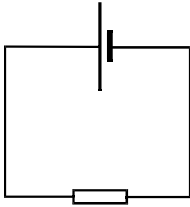
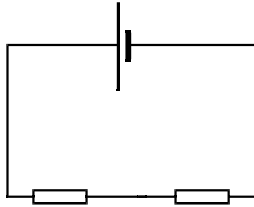


Questions about Electric Circuits

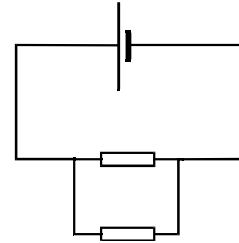
1. State Ohm's law.
2. Calculate the current flowing through the battery in each of the circuits shown below. In each case, the battery voltage is 12V and the resistors are each 4Ω .



Circuit a)

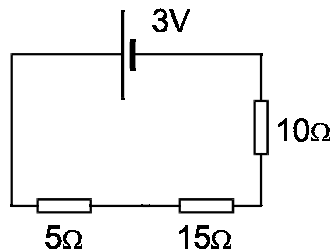


Circuit b)



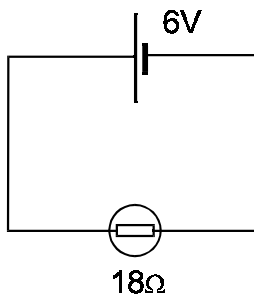
Circuit c)

3. What is the voltage across each of the resistors in the three circuits in question 2?
4. Consider the circuit shown below.



Calculate:

- a) the current flowing
 - b) the voltage across the 10Ω resistor.
5. The battery in the circuit below is capable of supplying a total of 43200J of energy. The bulb has a resistance of 18Ω when operating normally. For approximately how many hours could the battery light the bulb?



Do a calculation then try to explain why your answer will be only *approximately* correct.