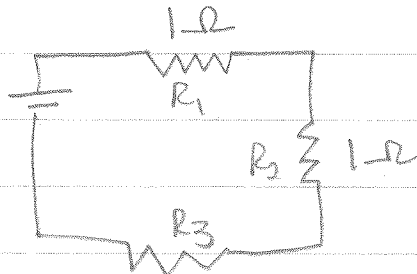


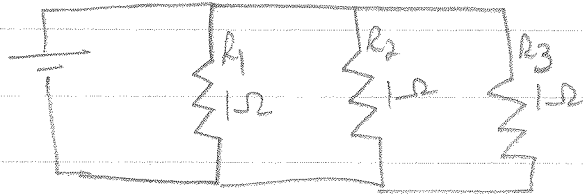
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4.) in a series circuit



$$R_{eq} = R_1 + R_2 + R_3 = 3 \Omega$$

6.) in a parallel circuit



$$R_{eq} = \left(\frac{1}{1} + \frac{1}{1} + \frac{1}{1}\right)^{-1} = .33 \Omega$$

12.) Set A is wired in parallel while set B is wired in series.

13.) Because there is no potential difference between the feet of the bird

14.) Parallel, because if one bulb burns out the other bulb stay lit

15.) Junction Rule \rightarrow current into a junction = current out of a junction
Loop Rule \rightarrow sum of potential differences across a loop must be zero

19.) No, no potential difference is established

No, if she touches wire $\&$ grounds circuit, she will shocked