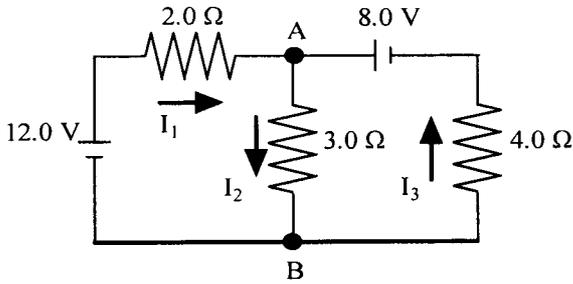
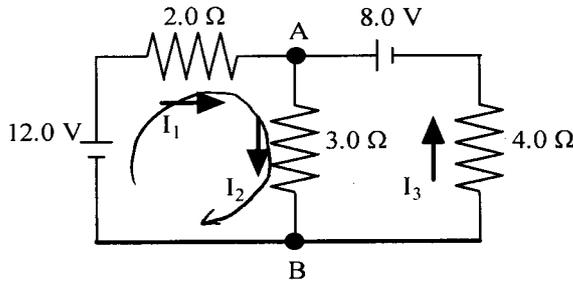


1. For the circuit shown, write down the junction rule equation for the junction at "A."

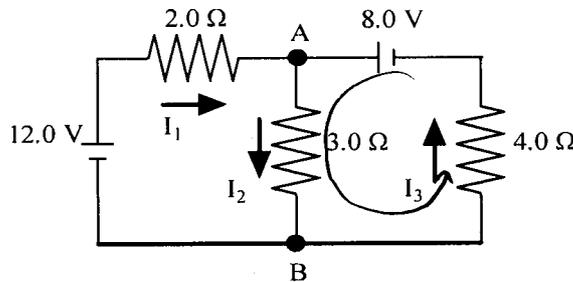


$$I_1 + I_3 = I_2$$

2. Write down the 2 loop rule equations for the same circuit and show the loops you have chosen on the circuits shown below.



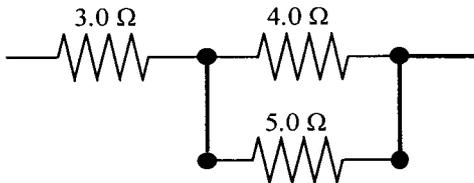
$$12V - (2\Omega)I_1 - (3\Omega)I_2 = 0$$



$$8V - (3\Omega)I_2 - (4\Omega)I_3 = 0$$

Also $12V - (2\Omega)I_1 - 8V + (4\Omega)I_3 = 0$

3. What single equivalent resistor can replace the three resistors in the figure below?



$$3\Omega + \frac{(4\Omega)(5\Omega)}{(4\Omega + 5\Omega)} = \frac{27\Omega}{9} + \frac{20\Omega}{9} = \frac{47}{9}\Omega = 5\frac{2}{9}\Omega = \boxed{5.2\Omega}$$

Who were the saxophone players for Bruce Springsteen and Billy Joel? (Must get both)