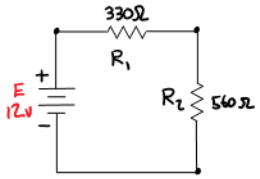
**Series DC Circuit Properties (45:43)**

Describe how current through individual elements relates to source current in series circuits.




Given the above series circuit determine the total resistance, source current, and total power.

Given the above series circuit determine the voltage drop across $R_1$ and $R_2$.

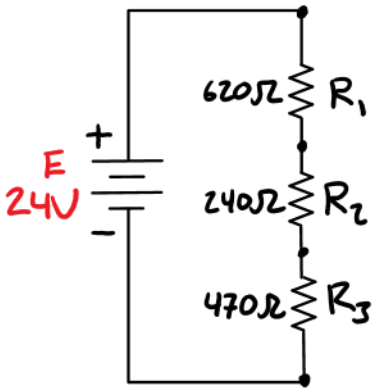
Identify which resistor in a series relationship experiences the largest voltage drop. Identify which resistor in a series relationship experiences the smallest voltage drop.

Describe how voltage dropped by individual elements in a series circuit relates to supply voltage.

Describe how power dissipated by individual elements in series circuits relates to total power.

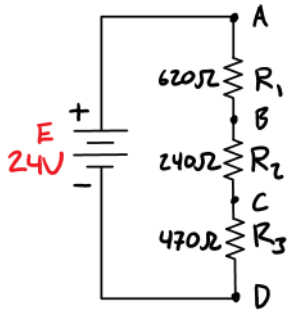
Identify which resistor in a series relationship dissipates the most power. Identify which resistor in a series relationship dissipates the lest power.

Given the above series circuit determine the power dissipated by $R_1$ and $R_2$.




Given the above series circuit determine the total resistance, source current, and total power. Additionally, determine the voltage drop across and the power dissipated by $R_1$ and $R_2$.

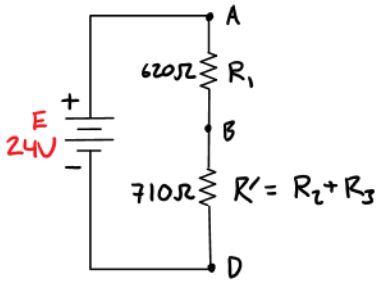
Use an algebraic manipulation of Kirchhoff's Voltage law and the total power equation for the above circuit to solve for the voltage drop across and the power dissipated by $R_3$. Use Ohm's Law and the power equation to confirm these results.



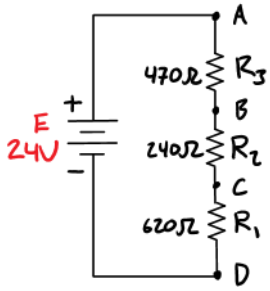

Given the above circuit use double subscript notation to identify the voltage drop across individual elements in this system.

Given the above circuit, use Kirchhoff's Voltage Law and single subscript notation assuming node D is the reference to determine $V_A$, $V_B$, and $V_C$.

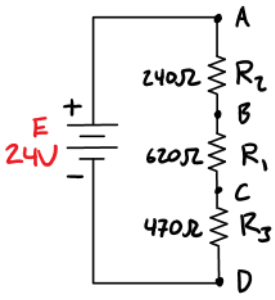
Given the above single subscript voltages calculate the following double subscript voltages:
$V_{AB} = V_A - V_B$
$V_{BC} = V_B - V_C$
$V_{CD} = V_C - V_D$




Given the above series circuit use Kirchhoff's Voltage Law and single subscript notation, assuming node D is the reference, to determine $V_A$ and $V_B$. Determine the voltage across and the current through the 710Ω resistor.




Given the above series circuit featuring rearranged elements, use Kirchhoff's Voltage Law and single subscript notation assuming node D is the reference to determine $V_A$, $V_B$, and $V_C$. Discuss the implications of rearranging elements in series circuits.




Given the above series circuit featuring rearranged elements, use Kirchhoff's Voltage Law and single subscript notation assuming node D is the reference to determine $V_A$, $V_B$, and $V_C$.