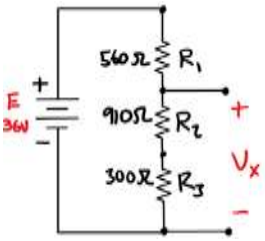
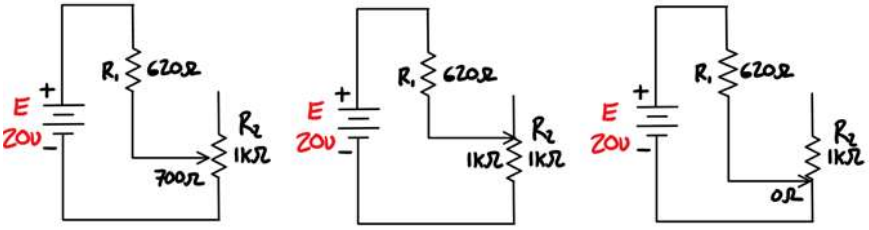
Series DC Circuits Examples: Level 1

ERROR @ 7:56 – V2 = I2·R2 = 12.3mA·1000Ω = 12.3V

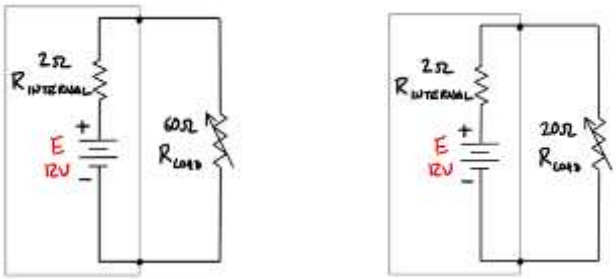
Determine the voltage drop across each element, the current through each element, the power dissipated by each element, the source current, and the total power. Additionally, determine V_X.



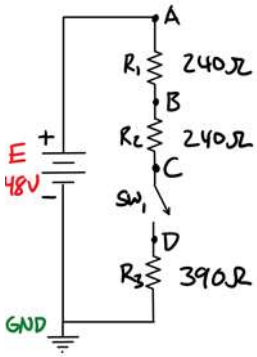
Determine the voltage drop across each element, the current through each element, and source current.



Determine the voltage drop across, the current through, and the power dissipated by the load. Additionally, determine the efficiency of these systems.



Determine the following single subscript voltages with respect to ground: V_A, V_B, V_C, and V_D for the switch in the open and closed conditions. Additionally, determine V_{CD} for the same conditions.


A
R1
240Ω
B
R2
240Ω
C
SW1
D
R3
390Ω
E
48V
+
−
GND