

Part I Series Circuits - Construct the circuits below and fill in the data table

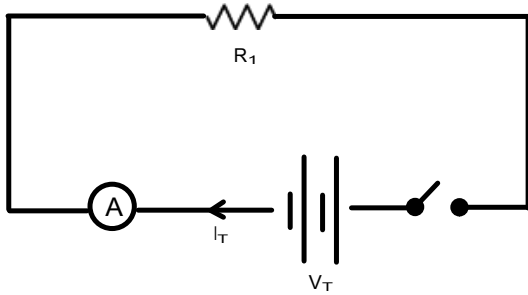


Table 1

#	V (V)	I (A)	R (Ω)
1			
Circuit Totals	$V_T =$	$I_T =$	$R_{eq} =$

Using the circuit above insert another cell. Fill in the table below.

Table 2

#	V (V)	I (A)	R (Ω)
1			
Circuit Totals	$V_T =$	$I_T =$	$R_{eq} =$

How did the voltage and current change when another cell was added?

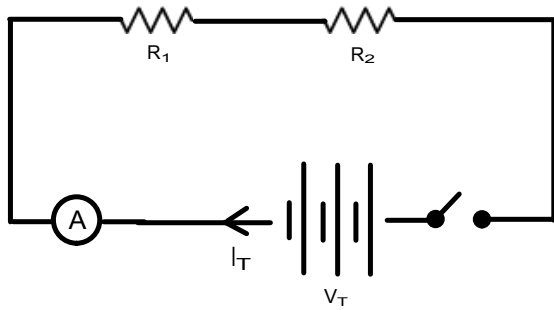


Table 3

#	V (V)	I (A)	R (Ω)
1			
2			
Circuit Totals	$V_T =$	$I_T =$	$R_{eq} =$

Part II Parallel Circuits - Construct the following circuit and fill out the data table:

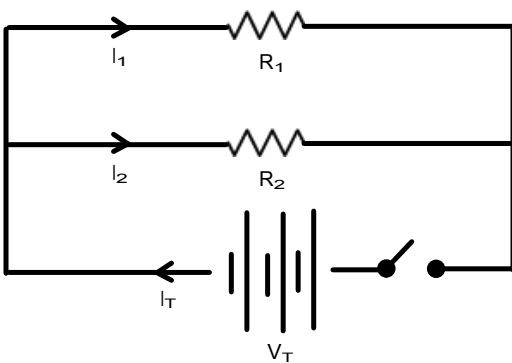


Table 4

#	V (V)	I (A)	R (Ω)
1			
2			
Circuit Totals	$V_T =$	$I_T =$	$R_{eq} =$

Compare this data with table 3 from the series circuit.

Part III Combining Parallel and Series - Construct the circuits below and fill in the data table

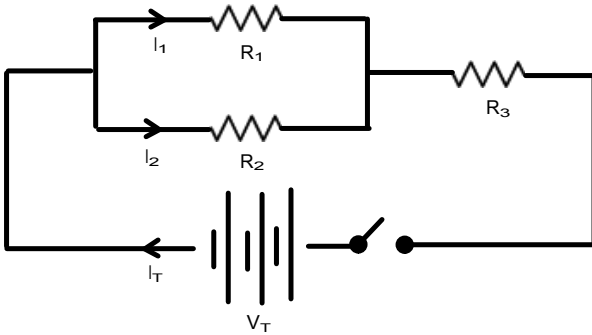


Table 5

#	V (V)	I (A)	R (Ω)
1			
2			
3			
Circuit Totals	$V_T =$	$I_T =$	$R_{eq} =$

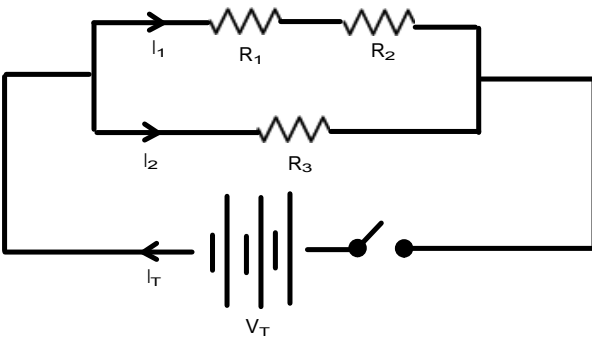


Table 6

#	V (V)	I (A)	R (Ω)
1			
2			
3			
Circuit Totals	$V_T =$	$I_T =$	$R_{eq} =$

Note how the slight change in position of the resistors in the above two circuits can greatly affect all aspects of the current!