The Accordion Method Name _____

Step 1:
Combine the resistors using the correct formula until you have a simple circuit.

Equivalent Resistance for a Series Circuit	**Equivalent Resistance for a Parallel Circuit**
$R_s = R_1 + R_2 + R_3$	$\frac{1}{R_p} = \frac{1}{R_1} + \frac{1}{R_2} + \frac{1}{R_3}$

Step 2:
Solve the simple circuit.

Step 3:
Go upward to each complex circuit, one at a time. In each case, follow the rule for separating resistors.

Rule for separating two resistors in series	Rule for separating two resistors in parallel.
Two resistors in series *always have the same current*.	Two resistors in parallel *always have the same voltage (potential difference)*.

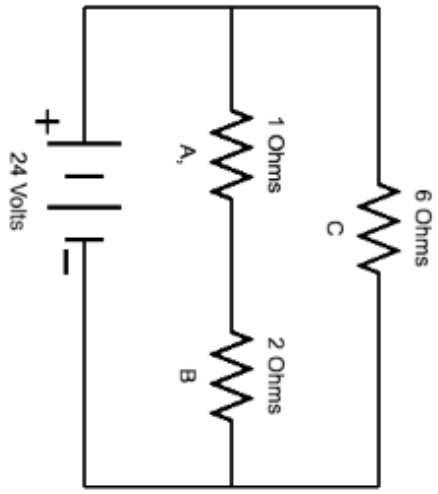
Step 4:
Solve each more complex circuit as you reach it.
Repeat.

Step 5:
Use the information you have compiled to answer the final question:

The Accordion Method Name _____

Problem 1:
Using the table below, find the power dissipated by each individual resistor and the total circuit:

Original Circuit



V				
I				
R				
P				

Simpler Circuit

V			
I			
R			
P			

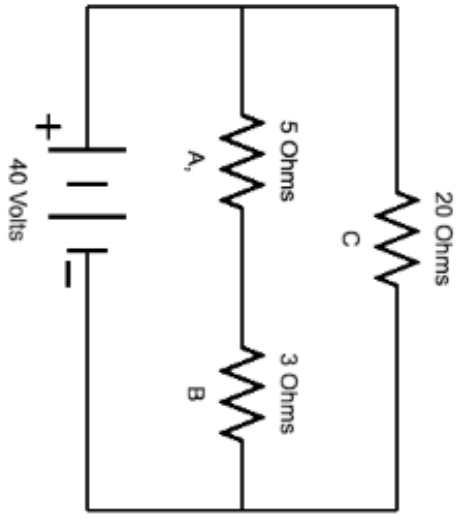
Answer the final question

	Resistor A	Resistor B	Resistor C	Total Circuit
Power (Watts)				

The Accordion Method Name _____

Problem 2: Using the table below, find the power dissipated by each individual resistor and the total circuit:

Original Circuit



V				
I				
R				
P				

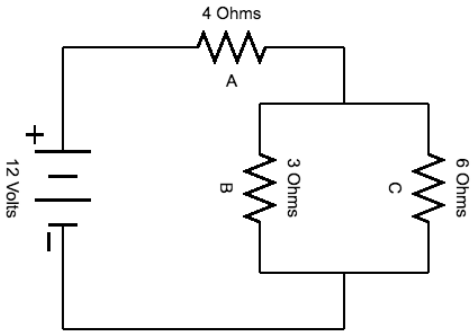
Simpler Circuit

V			
I			
R			
P			

The Accordion Method Name _____

Problem X1: Using the table below, find the power dissipated by each individual resistor and the total circuit:

Original Circuit



V				
I				
R				
P				

Simpler Circuit

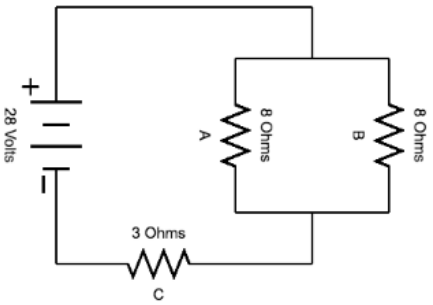
V			
I			
R			
P			

	Resistor A	Resistor B	Resistor C	Total Circuit
Power (Watts)				

The Accordion Method Name _____

Problem X2:
Using the table below, find the power dissipated by each individual resistor and the total circuit:

Original Circuit



V				
I				
R				
P				

Simpler Circuit

V				
I				
R				
P				

	Resistor A	Resistor B	Resistor C	Total Circuit
Power (Watts)				

The Accordion Method Name _____

One-Step Accordion Problem Template

Original Circuit		V				
		I				
		R				
		P				
Simpler Circuit		V				
		I				
		R				
		P				

The Accordion Method Name _____

Alternative one-step accordion method template

Original Circuit					
	V				
	I				
	R				
	P				
Simpler Circuit	V				
	I				
	R				
	P				