

Name: _____

Circuits Worksheet

1. Calculate the equivalent resistance of the following combination:

$R_{eq} = \underline{\hspace{2cm}}$

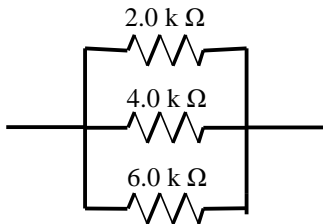


$R_{eq} =$

2. Calculate the equivalent resistance of the following combination:

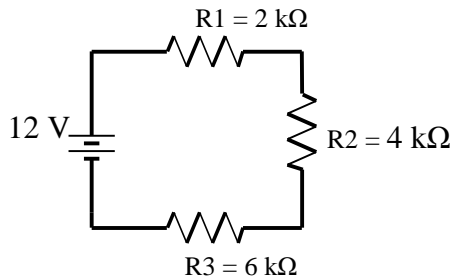
$R_{eq} = \underline{\hspace{2cm}}$

1.1



$\frac{1}{R_{eq}} =$

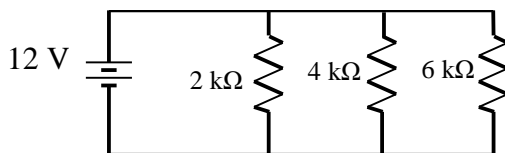
3. Complete the table by calculating the total resistance of the following series circuit. (*Note: components in series have the same current and their voltages add together*). Then, calculate total circuit current and the voltage drops and resistance for each of the resistors.



	V	I	R
R ₁		.001A	
R ₂		.001A	
R ₃		.001A	

Total circuit current:

4. Complete the table by calculating the total resistance of the following parallel circuit. (*Note: components in parallel have the same voltage and their currents add together*). Then calculate total circuit current and the voltage drops and resistance for each of the resistors.

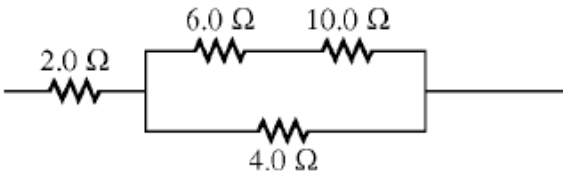


	V	I	R
R ₁	12V		
R ₂	12V		
R ₃	12V		

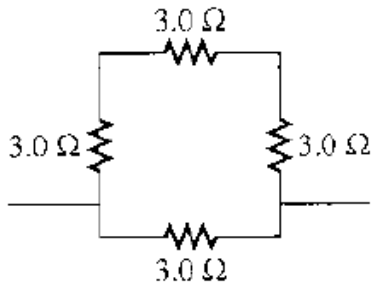
Total circuit current:

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5. What is the equivalent resistance for the resistors in the figure below?



6. What is the equivalent resistance for the resistors in the figure below?



7. For the circuit below, find the following:

- What is the equivalent resistance?
- What is the total voltage drop across the entire circuit?
- What is the total current?

