

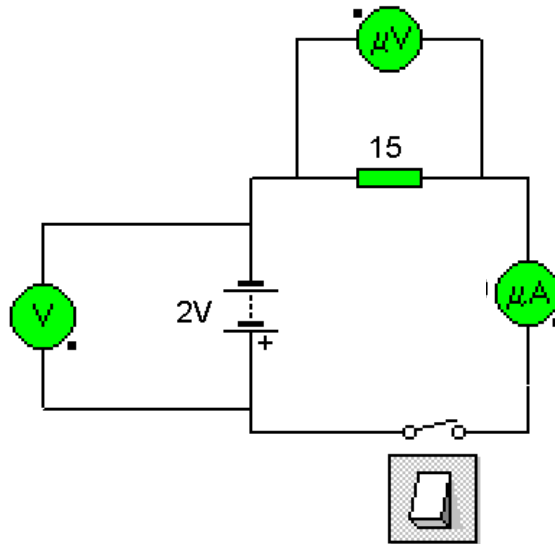
ID  $\beta$   
Name \_\_\_\_\_  
Part A

Simple Circuits

Mr. C

Predictions

1. On the diagram predict the voltage across the battery and the resistor. Also, predict the current that will be measured by the ammeter. **Report your predictions using the Senteo clicker.**



2. Explain your voltage predictions. Show all work and equations including substitution with units.

3. Explain your current prediction. Show all work and equations including substitution with units.

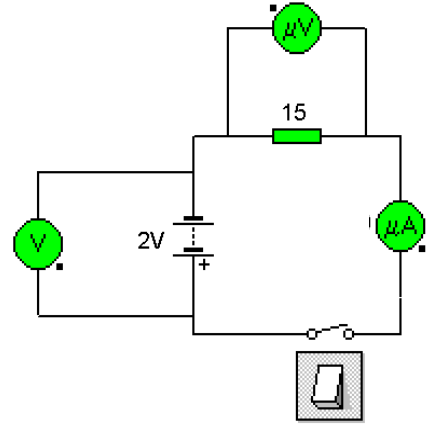
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ID  $\beta$   
Name \_\_\_\_\_  
Part A

Simple Circuits

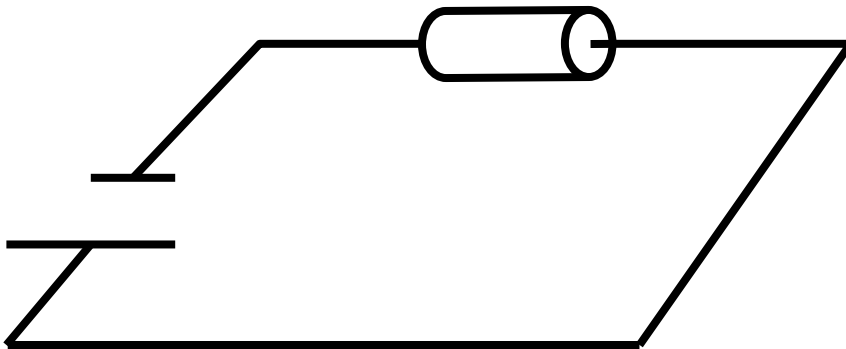
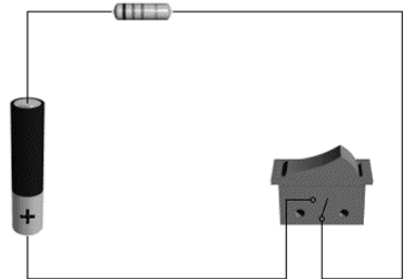
Mr. C  
Results

1. On the diagram record the voltage across the battery and the resistor. Also, record the current that will be measured by the ammeter. **(Include Units)**



2. What is the relationship between the voltage, current and resistance? Prove your answer using the data from above. **Show all work and equations including substitution with units.**

3. Draw the current in the circuit. Plot the voltage in the circuit.



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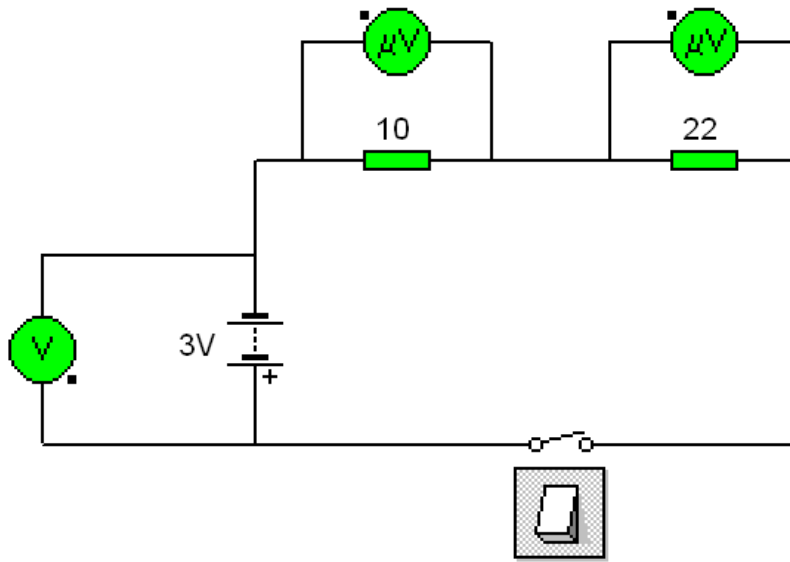
ID β  
Name \_\_\_\_\_  
Part B

Simple Circuits

Mr. C

Predictions

1. On the diagram predict the voltage across the battery and the resistors. **Report your predictions using the Senteo clicker.**



2. Explain your voltage predictions. Show all work and equations including substitution with units.

-Stop-

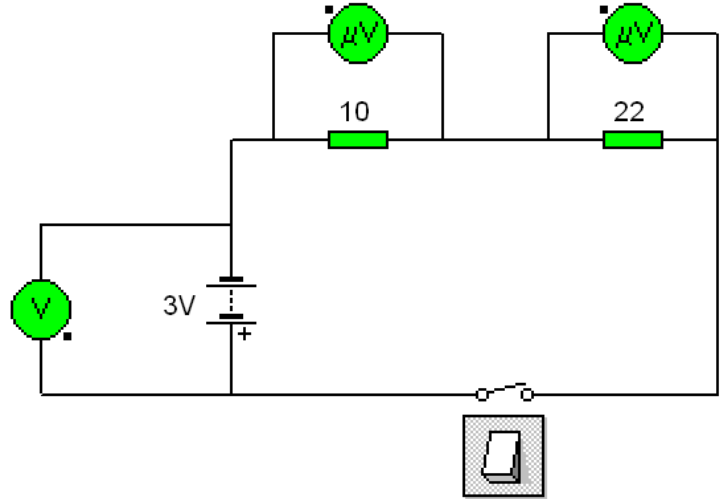
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Part B

Simple Circuits

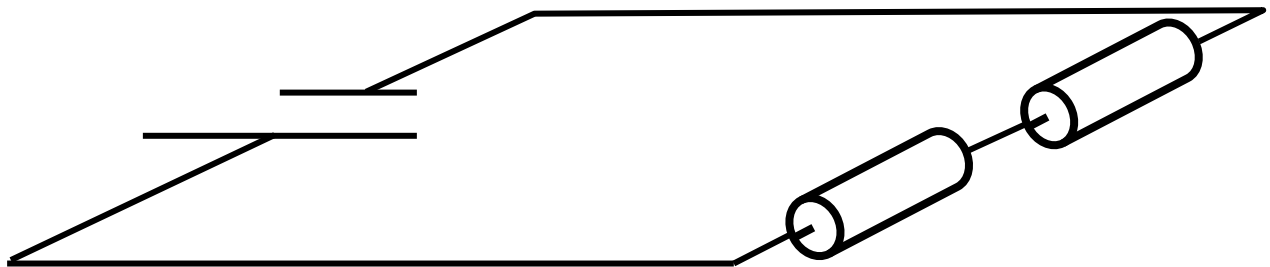
Mr. C  
Results

1. On the diagram record the voltage across the battery and the resistors. (Include Units)

2. What is the relationship between the voltages and the resistors? Prove your answer using the data from above.



3. Plot the voltage in the circuit.



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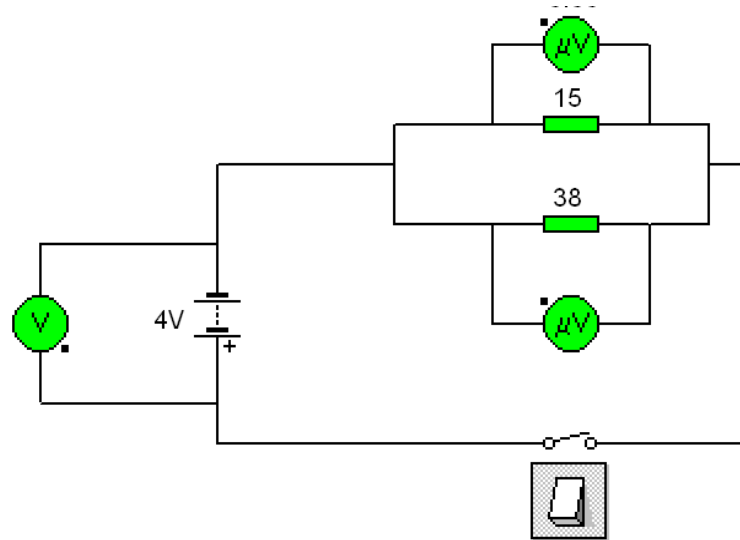
ID β  
Name \_\_\_\_\_  
Part C

Simple Circuits

Mr. C

Predictions

1. On the diagram predict the voltage across the battery and the resistors. **Report your predictions using the Senteo clicker.**



2. Explain your voltage predictions. **Show all work and equations including substitution with units.**

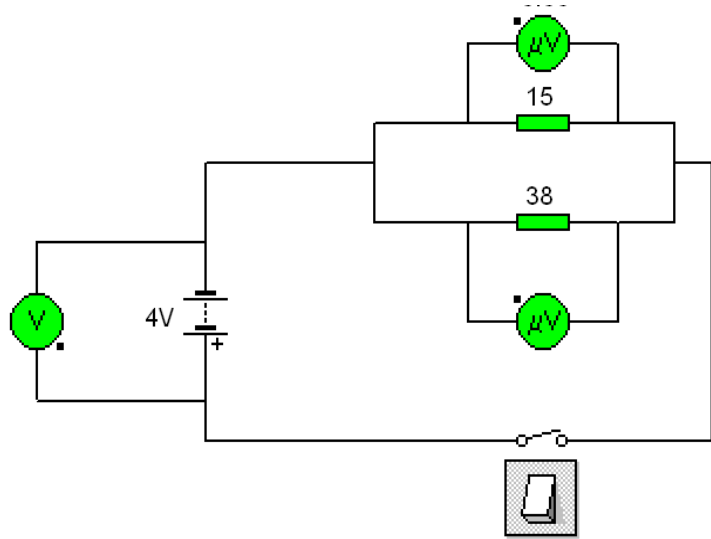
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ID β  
Name \_\_\_\_\_  
Part C

Simple Circuits

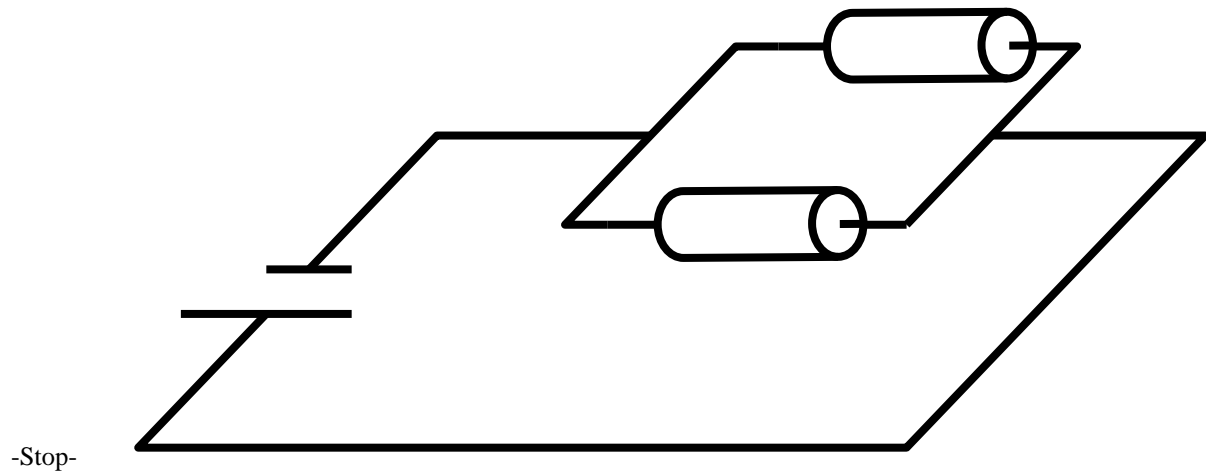
Mr. C  
Results

1. On the diagram record the voltage across the battery and the resistors. (Include Units)



2. What is the relationship between the voltages and resistors? Prove your answer using the data from above.

3. Plot the voltage in the circuit.



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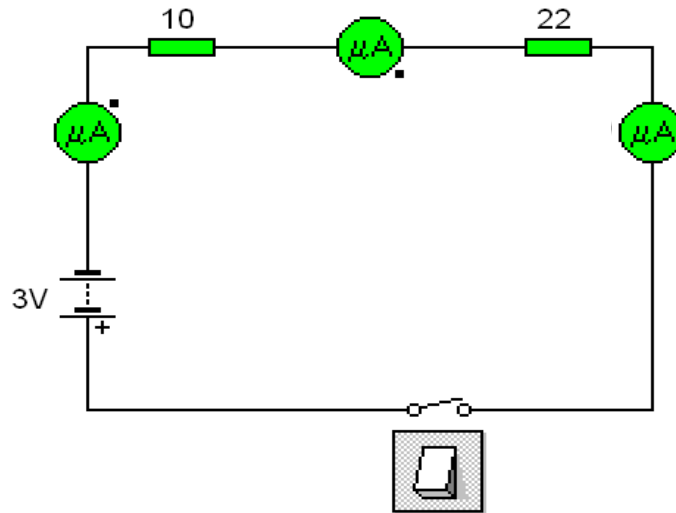
ID  $\beta$   
Name \_\_\_\_\_  
Part D

Simple Circuits

Mr. C

Predictions

1. On the diagram predict the currents that will be measured by the ammeters. **Report your predictions using the Senteo clicker.**



2. Explain your current predictions. **Show all work and equations including substitution with units.**

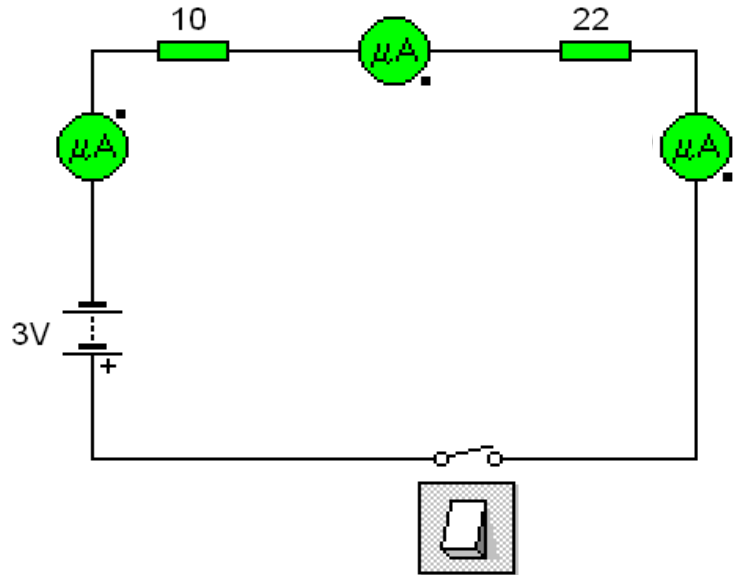
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Name \_\_\_\_\_  
Part D

Simple Circuits

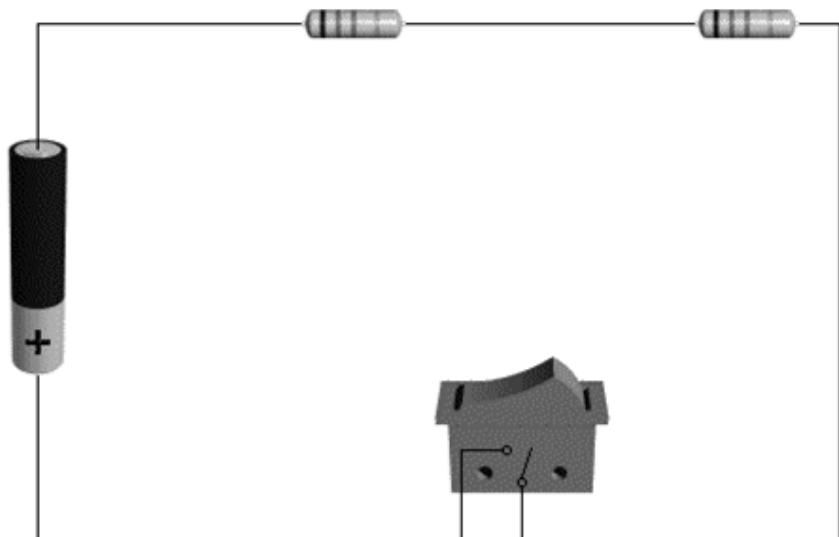
Mr. C  
Results

1. On the diagram record the currents that will be measured by the ammeters. **(Include Units)**



2. What is the relationship between the current and the resistors? Prove your answer using the data from above.

3. Draw the currents in the circuit. Label each with an arrow to indicate direction and give each different current a different label, i.e.  $I_1, I_2, I_3, \dots$



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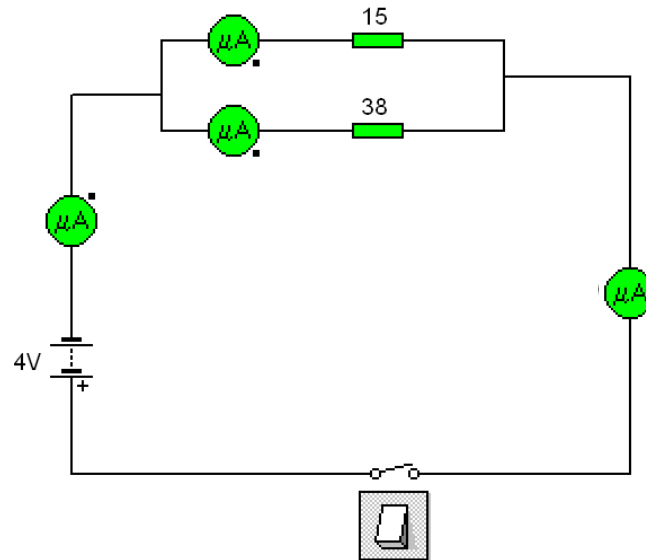
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Part E

Simple Circuits

Mr. C

Predictions

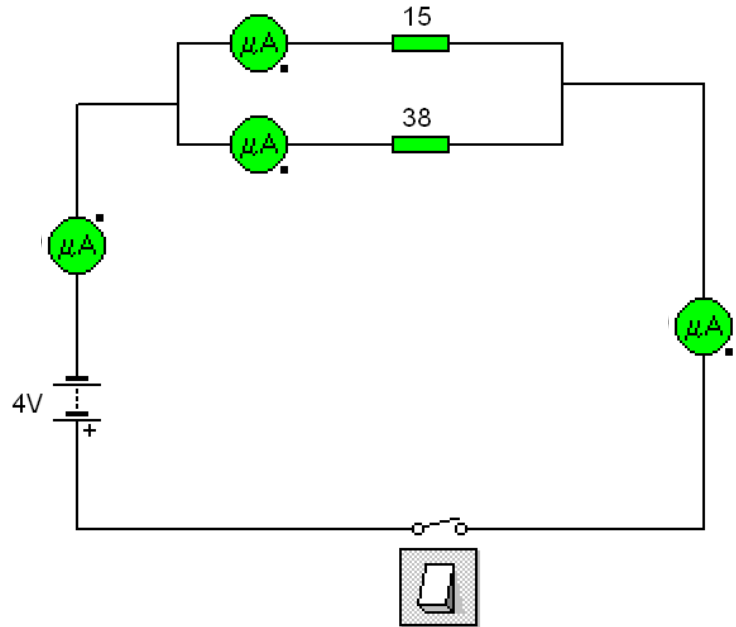
1. On the diagram predict the currents that will be measured by the ammeters. **Report your predictions using the Senteo clicker.**



2. Explain your current predictions. **Show all work and equations including substitution with units.**

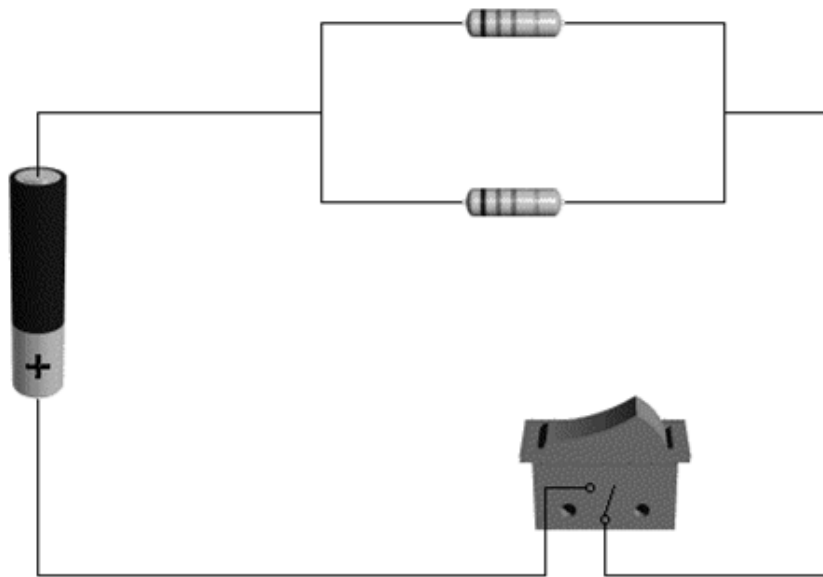
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1. On the diagram record the currents that will be measured by the ammeters. (**Include Units**)



2. What is the relationship between the currents and resistors? Prove your answer using the data from above.

3. Draw the currents in the circuit. Label each with an arrow to indicate direction and give each different current a different label, i.e.  $I_1, I_2, I_3, \dots$



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ID  $\beta$   
Name \_\_\_\_\_.

Simple Circuits

Mr. C

Summary Sheet

State and explain Kirchhoff's Loop Theorem.

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State and explain Kirchhoff's Junction Theorem.

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