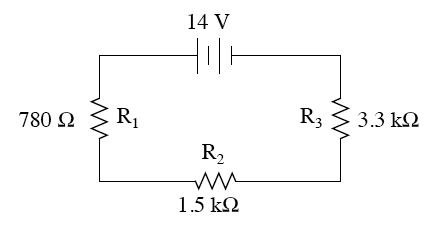
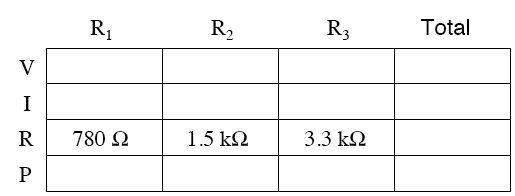
1. Fill in the table for this circuit. Show your work and then check your answer with PhET. Screenshot your completed circuit.

8V



78Ω

33Ω

15Ω

1. A parallel circuit has 3 resistors each on different paths connected to an 8V potential difference. The resistors have resistances of 5.0 Ω, 7.5 Ω, and 9.8 Ω?

Draw a picture of the circuit. Fill in the table for this circuit. Show your work and then check your answer with PhET. Screenshot your completed circuit.

|  |  |  |  |
| --- | --- | --- | --- |
| Add units to measurements | 5.0 Ω | 7.5 Ω | 9.8 Ω |
| V ( ) |  |  |  |
| I ( ) |  |  |  |
| R ( ) |  |  |  |
| P ( ) |  |  |  |

1. For both circuits: Determine the potential difference on and the current through each resistor. Show your work and then check your answer with PhET. Screenshot your completed circuit.

|  |  |  |  |
| --- | --- | --- | --- |
| Add units to measurements | 3.0 Ω | 6.0 Ω | 9.0 Ω |
| V ( ) |  |  |  |
| I ( ) |  |  |  |
| R ( ) |  |  |  |
| P ( ) |  |  |  |

3.0 Ω

9.0 Ω

12.0 V

6.0 Ω

12.0 V

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Add units to measurements | 50.0 Ω | 30.0 Ω | 90.0 Ω | 20.0Ω |
| V ( ) |  |  |  |  |
| I ( ) |  |  |  |  |
| R ( ) |  |  |  |  |
| P ( ) |  |  |  |  |

20.0 Ω

30.0 Ω 50.0 Ω

90.0 Ω

1. Construct a complex circuit that will produce 180.741Ωtotal resistance using PhET. Draw your diagram. Screenshot your completed circuit and fill out the table below.

Use: 9 V battery, resistors: 100 Ω, 100 Ω, 100 Ω, 50 Ω, 40 Ω, 20 Ω, and wire

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | 220Ω | 100 Ω | 50 Ω | 40 Ω |
| V |  |  |  |  |
| I |  |  |  |  |
| R |  |  |  |  |
| P |  |  |  |  |