

Equivalent Resistance

Name: _____

1. Log on and go to <http://www.article19.com/shockwave/oz.htm>
2. Be sure to read all of the instructions on the left side of the page.
3. Click on “the hand”.
4. Click on ‘**Equivalent resistance in a series circuit**’. Click OK.
5. In a series circuit, the Total resistance in the circuit is the _____ of all the other resistors.

Place your mouse over the purple resistor. Resistance = _____

Place your mouse over the blue resistor. Resistance = _____

Place your mouse over the battery. Resistance = _____

Summarize in your own words. _____

6. Build your own Series circuit and prove that your statement works. Show me! _____
7. Click on “the hand”. Click on ‘**Equivalent resistance in a parallel circuit**’. Click OK.

The total resistance in a parallel circuit can be found using the following formula.

Place your mouse over the purple resistor. Resistance = _____

Place your mouse over the blue resistor. Resistance = _____

Place your mouse over the battery. Resistance = _____

In general, we can say that the Total Resistance in a parallel circuit will be _____ than the resistance of any of the individual resistors.

8. Build your own parallel circuit and prove that this is true. Show me! _____