1. #include <iostream>
2. #include <string>
3. **using namespace std**;
4. **int** main() {
5. // Get the circuit info as a string using the getline function.
6. **string** circuitSpecs;
7. **cout** <<"Circuit Description: ";
8. getline(**cin**, circuitSpecs);
9. // Make an array for the values of the resistances.
10. **double** resistances[3];
11. **for**(**int** i{0};i<3;i++)
12. {
13. resistances[i] = stod(circuitSpecs.**substr**(2 + 2\*i, 1));
14. }

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1. // Make an equivalent resistance variable and calculate it depending on the type of connection.
2. **double** totalResistance{};
3. **if**(circuitSpecs[0] =='S'){
4. **for**(**int** i{0};i<3;i++)
5. {
6. totalResistance += resistances[i];
7. }
8. }
9. **else**
10. {
11. **for**(**int** i{0};i<3;i++)
12. {
13. totalResistance += (1/resistances[i]);
14. }
15. totalResistance = 1/totalResistance;
16. }

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1. // Read the voltage applied to the circuit.
2. **double** voltage{};
3. **cout** <<"Voltage Applied: ";
4. **cin** >>voltage;

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1. // Print out the calculated equivalent resistance and circuit current.
2. **cout** <<"Equivalent Resistance: "<<totalResistance<< **endl**;
3. **cout** <<"Current in the Circuit: "<<voltage/totalResistance<< **endl**;
4. }

Graphical user interface, text

Description automatically generated

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