```
Script started on 2020-10-03 07:27:32-0500
m_sadaf1@ares:~$ pwd
/home/students/m_sadaf1
m_sadaf1@ares:~$ cat resistance.info
Name: Madiha Sadaf
Class: CSC121 W01

Lab: Resistance is Everything
Level: 2

Description:

This program helps reads the user's two resistors'
resistance values, calculate both the parallel and
series resistances, and print each out.

m_sadaf1@ares:~$ cat resistance.tpq
Thought Provoking Questions:

1) We just need one cin statement in this program.

2) The order does not matter as the resistance is
calculated in ohms.

3) No. There should be two different cout statements.

4) Nothing happens if the user types their numbers on
seperate lines. the program would still execute normally.

5) We should put the sum in the denominator in the
paranthesis to treat it as a single group when translating
the formula into C++ expression.

6) i) 1 variable
  ii) 1 variable
 iii) 2 variables
 In each case, the variables ar eused to store a value.
 The data type would be short and double because the user
 would not enter more than 2-3 digits as input.

 7) Decimal values, rational, irrational, fractions, etc.

 8) i) The program would still execute giving a negative
 value as the answer.

   ii) The program would still execute giving a 0 as the
   answer.

m_sadaf1@ares:~$ cat resistance.cpp
#include <iostream>

using namespace std;

int main (void)
{

    short R1, R2;
    double RC;

    cout<< "\t\t\tWelcome to the Resistor Calculation"
            " Program!!! \n";

    cout<< "\nPlease enter your two resistances: ";

    cin >> R1 >> R2;

    cout<< "\nThank you!!! You've entered "
            << R1 << " ohms and" << R2 <<
            " ohms! Calculating.....\n";

    cout<< "\nDone.\n";

    RC = (R1) + (R2);

    cout << "\nIf your resistors are placed in series,"
            "they'll total to "
            <<RC<< " ohms.\n";

    RC = 1 / (1.0/R1 + 1.0/R2);

    cout<< "\nIf they are placed in parallel,"
            "they'll total "
            << RC<< " ohms.\n";



    cout<< "\nThank you for using the RCP!!!\n";

    cout<< "\nEndeavor to have a blossoming day!";

    return 0;
}
m_sadaf1@ares:~$ CPP resistance
```

```
resistance.cpp***


m_sadaf1@ares:~$ ./resistance.out
                        Welcome to the Resistor Calculation Program!!!

Please enter your two resistances: 12 42

Thank you!!! You've entered 12 ohms and42 ohms! Calculating.....

Done.

If your resistors are placed in series,they'll total to 54 ohms.

If they are placed in parallel,they'll total 9.33333 ohms.

Thank you for using the RCP!!!

Endeavor to have a blossoming day!m_sadaf1@ares:~$
m_sadaf1@ares:~$ ./resistance.out
                        Welcome to the Resistor Calculation Program!!!

Please enter your two resistances: 2 12

Thank you!!! You've entered 2 ohms and12 ohms! Calculating.....

Done.

If your resistors are placed in series,they'll total to 14 ohms.

If they are placed in parallel,they'll total 1.71429 ohms.

Thank you for using the RCP!!!

Endeavor to have a blossoming day!m_sadaf1@ares:~$ ./resistance.out
                        Welcome to the Resistor Calculation Program!!!

Please enter your two resistances: 8 16

Thank you!!! You've entered 8 ohms and16 ohms! Calculating.....

Done.

If your resistors are placed in series,they'll total to 24 ohms.

If they are placed in parallel,they'll total 5.33333 ohms.

Thank you for using the RCP!!!

Endeavor to have a blossoming day!m_sadaf1@ares:~$ exit
exit

Script done on 2020-10-03 07:29:38-0500
```