

# Program 5

## Resistor Calculations part 2

Name: \_\_\_\_\_ Time spent: \_\_\_\_\_ min

Write a program to read in two resistor values (**ints**) and a character from the user and calculates and prints the series **OR** parallel resistance of the two inputs  
100 pts

Use a **while(1){ }** construct to run the calculations in an infinite loop

The input resistor values range from  $1\Omega$  to  $1M\Omega$ , entered in long form  
 $10K\Omega$  would be entered as 10000

The character input can be **s**, **S**, **p**, or **P**

calculate and print the series resistance if the character is s or S

calculate and print the parallel resistance if the character is p or P

Provide **flow diagram**, **code**, and **results** for { $1K\Omega$ ,  $1K\Omega$ , s}, { $2.5K\Omega$ ,  $3K\Omega$ , p}, { $10\Omega$ ,  $10K\Omega$ , S}, { $10K\Omega$ ,  $30K\Omega$ , P}

```
Programming_Project.exe [C/C++ Application] [pid: 16]
Program HW #5
Dr. Johnson

Resistor Combination Calculator - part 2

please enter your 2 resistor values and s, S, p, or P: 2000 2000 P
2000 Ohms in parallel with 2000 Ohms = 1000.000000 Ohms

please enter your 2 resistor values and s, S, p, or P: 2000 2000 s
2000 Ohms in series with 2000 Ohms = 4000.000000 Ohms
```

Only material covered in class allowed in this program

`while(1){ ... }` construct – used to create an infinite loop

```
// program comments
```

```
...
```

```
int main(void){
```

```
    declarations – anything only done once
```

```
    ...
```

```
    while(1){           // start infinite loop
```

```
        ...
```

```
        code you want to run in the infinite loop
```

```
        ...
```

```
    }
```

```
    return 0;
```

```
}
```