

Computer Programming

Quiz1

Oct. 25, 2024



Problem 1 (pr1.c)

- Write a program that outputs the absolute value of an integer entered by the user.
 - ✓ Do not use the `abs()` function.

Problem 1 (pr1.c)

- **Program output**

```
[ohyong@cse Quiz1_s456]$ vi pr1.c
[ohyong@cse Quiz1_s456]$ gcc pr1.c -o pr1
[ohyong@cse Quiz1_s456]$ ./pr1
Enter an integer: -5
Absolute value: 5
[ohyong@cse Quiz1_s456]$ ./pr1
Enter an integer: 7
Absolute value: 7
[ohyong@cse Quiz1_s456]$ ./pr1
Enter an integer: 0
Absolute value: 0
```

Problem 2 (pr2.c)

- Write a program that takes two integers as input and calculates the sum of all integers between the two numbers. Output the sum from the smaller to the larger of the two numbers.
 - ✓ The two numbers are inclusive.

Problem 2 (pr2.c)

- **Program output**

```
[ohyong@cse Quiz1_s456]$ vi pr2.c
[ohyong@cse Quiz1_s456]$ gcc pr2.c -o pr2
[ohyong@cse Quiz1_s456]$ ./pr2
Enter two integers: 1 3
The sum of all numbers between 1 and 3 is: 6
[ohyong@cse Quiz1_s456]$ ./pr2
Enter two integers: 5 2
The sum of all numbers between 2 and 5 is: 14
[ohyong@cse Quiz1_s456]$ ./pr2
Enter two integers: 4 -2
The sum of all numbers between -2 and 4 is: 7
[ohyong@cse Quiz1_s456]$ ./pr2
Enter two integers: 3 3
The sum of all numbers between 3 and 3 is: 3
```

Problem 3 (pr3.c)

- Write an `isPrime()` function that takes a positive integer n greater than 1 from the user and checks whether it is prime.
 - ✓ If you write a program using only the `main()` function without implementing the `isPrime()` function, you will receive a 4-point deduction.
 - ✓ The function prototype is as follows:

```
int isPrime(int n)
{

}
```

Problem 3 (pr3.c)

- **Program output**

```
[ohyong@cse Quiz1_s456]$ vi pr3.c
[ohyong@cse Quiz1_s456]$ gcc pr3.c -o pr3
[ohyong@cse Quiz1_s456]$ ./pr3
Enter a positive integer greater than 1: 7
7 is a prime number.
[ohyong@cse Quiz1_s456]$ ./pr3
Enter a positive integer greater than 1: 6
6 is not a prime number.
[ohyong@cse Quiz1_s456]$ ./pr3
Enter a positive integer greater than 1: 13
13 is a prime number.
[ohyong@cse Quiz1_s456]$ ./pr3
Enter a positive integer greater than 1: 12
12 is not a prime number.
```

Submission

- **Submit to CSE server**

At the end of the Quiz1, submit your C source files by typing

```
~gs1401/bin/submit Quiz1_s456 pr1.c pr2.c pr3.c // due : 14:50
```

You may check that you have submitted your source code correctly by typing

```
~gs1401/bin/submit -check
```