

# 2040 Lab 2 – Answer Document

## Part 1 – Function Calls

3. What was the error, and how did you fix it?

None

4. Screenshot the output

```
/home/one1/git/COIS2040/Lab-2/main  
The value of c is: 15  
  
Process finished with exit code 0
```

5. Screenshot the output

```
/home/one1/git/COIS2040/Lab-2/main  
The value of c is: 15  
The value of d is: 30
```

## Part 2 – Optional Parameters

### 2. Screenshot the output

```
/home/one1/git/COIS2040/Lab-2/main  
The value of c is: 15  
The value of d is: 30  
The value of d is: 15
```

### 3. Why does this work?

```
int AddThreeOrLess(int a = 0, int b = 0, int c = 0){}
```

There are three optional parameters. In our case, a and b are assigned the given values, while c is not provided and, therefore c is automatically set to 0.

### 6. Screenshot the output

```
/home/one1/git/COIS2040/Lab-2/main  
The value of c is: 15  
The value of d is: 30  
The value of d is: 15  
The value of num3 is: 11.1
```

### 7. Why does this work even though num3 is a double and addTwo returns an integer?

The addTwo() function is overloaded, there are two different versions of the function one for integers and one for double.

## Part 3 – Void Functions and Function Identifiers

### 1. Why does this generate an error

The function `finalMessage()` is defined after the main method.

I fixed the defining `finalMessage()` before the main method.

### 3. Screenshot the output



The screenshot shows a C++ IDE with a dark theme. At the top, a code editor displays the following code:

```
void finalMessage();  
  
int main() {  
    int a = 10;
```

Below the code editor, a terminal window is open, showing the output of the program. The terminal text is as follows:

```
/home/one1/git/C0IS2040/Lab-2/main  
The value of c is: 15  
The value of d is: 30  
The value of d is: 15  
The value of num3 is: 11.1  
  
Thank you for using this program, hope you learned lots!  
Process finished with exit code 0
```