

### Hw Problem 1.1

```
// Filename: HW01_1.cpp
// Programmer: Duncan McFarlane
// Date: 1/23/2020
// Compiler Used: MS Visual Studio 2017
// Purpose: Convert feet to meters

#include <iostream>;
using namespace std;

int main() {
    double feet = 0.0;
    //Input:
    //Get the number of feet to convert
    cout << "Enter a value for feet:";
    cin >> feet;
    //Processing:
    //Convert to Meters
    double meters = 0.305 * feet;

    //Output:
    //Print the number of meters
    cout << feet << " feet is " << meters << " Meters";
    //Indicates that the program ran without any errors
    return 0;
};
```

```
Enter a value for feet:16.5
16.5 feet is 5.0325 Meters
```

### Hw Problem 1.2

```
// Filename: HW01_2.cpp
// Programmer: Duncan McFarlane
// Date: 1/23/2020
// Compiler Used: MS Visual Studio 2017
// Purpose: Convert feet to meters

#include <iostream>;
using namespace std;

int main() {
    double subtotal = 0.0;
    double gratuity = 0.0;

    //Input:
    //Get the subtotal and the gratuity
    cout << "Enter the subtotal and a gratuity rate:";
    cin >> subtotal >> gratuity;

    //Processing:
    // Calculate the gratuity and the total
    // Divide the gratuity by 100 because in
    // example it is given as a number (IE 12)
```

```
// rather than a rate (.12)
gratuity = subtotal * (gratuity/100.0);
double total = subtotal + gratuity;

//Output:
//Print the gratuity and the total
cout << "The gratuity is $" << gratuity << " and total is $" << total;

//Indicates that the program ran without any errors
return 0;
};
```

```
Enter the subtotal and a gratuity rate:10 15
The gratuity is $1.5 and total is $11.5
```