SWE315 : C++

**Homework 1**

Solution:

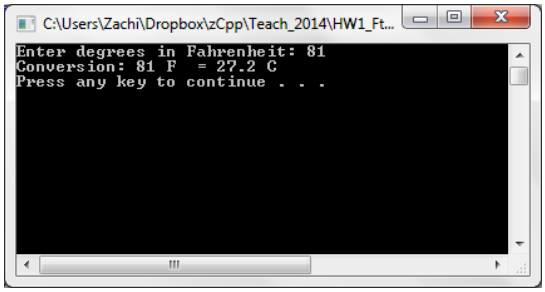
1. Please send solution to: zbaharav@cogswell.edu
2. Subject line: **HW1**
3. Make sure your subject line is indeed only 3 characters, no spaces, no comments after or before, just 3 characters: HW1
4. As solutions, either paste your code in a word document, or send me the .cpp files.
    a. Please **do not** send zipped directories, solutions, etc. Just ASCII .cpp (or .h) files.

====

1. Reply to the email you received from me through CAMS.

2. Write a program that converts Fahrenheit to Celsius.
    a. The program prompts the user for degrees in Fahrenheit.
    b. The program prints the equivalent value in degrees Celsius.

    (note: You do not have to do the floating-number formatting in the output)

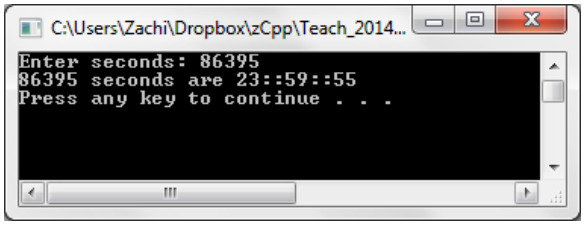



==========Solution=========

```
#include <iostream>
#include <iomanip>   // just for formatting

using namespace std;

int main()
{
	float c,f;

	cout << "Enter degrees in Fahrenheit: ";
	cin >> f;

	c = (f-32)*5/9;

	//cout << "Conversion: " << f << " F  = " << c << " C \n";
	cout << "Conversion: " << f << " F  = " << fixed << setprecision(1) << c <<
" C \n";  // formatting
```

```
        system("Pause");
        return 0;
    }
```

3. Write a program that converts seconds into Hours::Minutes::Seconds.




==========Solution=========

```
#include <iostream>
#include <iomanip>   // just for formatting

using namespace std;

int main()
{
        int s,m,h;    // Seconds, Minutes, Hours
        int s_left;

        cout << "Enter seconds: ";
        cin >> s;

        h = s/(60*60);
        s_left = s - h*(60*60);

        m = s_left/60 ;
        s_left -= m*60;

        cout << s << " seconds are " << setw(2) << h << "::" << m << "::" << s_left
<<endl;

        system("Pause");
        return 0;
    }
```

4. PGM file format:
    a. Read about the PGM file format (see links in the course page).
    b. Create a PGM ('P2' format, ASCII) file (or a few) that you will use in this course.
    c. Write a program that displays the file (calling OS command).

==========Solution=========

```
#include <iostream>

using namespace std;

void main()
{
	cout << "Displaying image.\n" ;
	cout << "You will  need to exit the program displaying the image in order
to complete the process.\n" ;
	system("J.pbm");

	//system("PAUSE");

}
```

=== End of Homework 1 ====