DT211/1 Programming Lab Test #2

Date: Thursday, February 28th, 2013 (10.30am – 11.30am)

Requirements:

Write a program that uses 2 functions for calculating different sets of temperatures. Your program must do the following:

1. Inside your *main()* function, define a floating point array with 3 elements. Using this array, enter 3 temperatures in Celsius.
2. Implement a function to calculate a temperature in Fahrenheit from its equivalent temperature in Celsius. Use this function to calculate the 3 Fahrenheit temperatures from their equivalent Celsius temperatures in your array. Display the equivalent sets of temperatures beside each other, e.g. X° Celsius = Y° Fahrenheit. Use the following formula:

$$\text{Fahrenheit°} = ((\text{Celsius°} / 5) * 9) + 32$$

3. Implement another function to calculate a temperature in Kelvin from its equivalent temperature in Celsius. Use this function to calculate the 3 Kelvin temperatures from their equivalent Celsius temperatures in your array. Display the equivalent sets of temperatures beside each other, e.g. X° Celsius = Y° Kelvin. Use the following formula:

$$\text{Kelvin°} = \text{Celsius°} + 273$$

Submission details:

1. Name your program: labtest2.c
2. Submit your program using the labtest listed in the Programming module in Webcourses. This must be submitted on or before 11.30am today in this lab.
3. Extra marks will be awarded for well written code (comments, indentation, whitespace, good use of brackets, etc.,).

NB - This is an individual lab test and **NOT** a group one. Any student discovered copying or communicating in any way (electronic, verbal, or otherwise) will immediately fail the lab test and reported to management in the School of Computing. Do your own work!! Please :)