

## Assignment 5

1. Program to convert Celsius into Fahrenheit
2. Read two floating point numbers and multiply them
3. Program to find roots of quadratic equation.
4. Program to find sum of cos(x) series:

$$\cos X = 1 - (x^2 / 2!) + (x^4 / 4!) - (x^6 / 6!) + \dots \text{ n terms}$$

Calculate Cos(X) by processor instruction and compare the result with the above one.

5. Program to find the quadrant in which the coordinate lie.
6. Sort an array of n floating point numbers.
7. Compute  $f(x) = x^3 + x^2 - 5x + 9$  for floating point x values.
8. Compute the Taylor series for the exponential function  $e^x$  at  $a = 0$  is

$$1 + \frac{x^1}{1!} + \frac{x^2}{2!} + \frac{x^3}{3!} + \frac{x^4}{4!} + \frac{x^5}{5!} + \dots = 1 + x + \frac{x^2}{2} + \frac{x^3}{6} + \frac{x^4}{24} + \frac{x^5}{120} + \dots = \sum_{n=0}^{\infty} \frac{x^n}{n!}.$$