

## ASSIGNMENT 2 - 10%

1. Write a program to find roots for the following equations using appropriate methods.

$$x^3 - 4x^2 - x + 4 = 0$$

$$x^4 + x^3 - x^2 - x + 1 = 0$$

2. Find a set of 1000 random numbers and obtain their mean and standard deviation.
3. Find the Fourier transform of a function whose analytic FT is known and compare the numerical and analytic FT.
4. Do the same for a Laplace transform.