



Computer assignment in Math-254

Sem2-1445H

Consider the equation: $x^3 + 2x = \sin(x) + 1$ and using **Secant method**.

Write a computer program to approximate the root of the equation in two cases:

- (i) $x_0 = 0.5, x_1 = 0.6$ to within accuracy 10^{-15} .
- (ii) $x_0 = 0, x_1 = 1$ to within accuracy 10^{-15} .

The decimal places to the right of the decimal point must be at least 15 places.

Notes:

- a- The program is submitted with output by e-mail.
- b- The program is done by any programming language you know.
- c- The assignment is due on **Sunday 1\8\1445H** (before 1.00 p.m.)

With my best wishes,
Fawaz S. Alotaibi
fotaibi@ksu.edu.sa