

Homework Assignment 3

Due on Friday 10/19

Programming Problems:

1. List and compare the first 5 iteration approximations obtained by Newton's method, the bisection method and the method of false position for the equations

$$\tan(\pi x) - x - 6 = 0$$

and

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

Use the initial conditions and exact root values given in the Table 2.5 on page 97 of the text book for three methods. List the absolute error e_n for all three methods.

Writing Problems:

Do the following exercise problems in the text book by Bradie,

Sec 2.4: 4, 7*, 11*, 14(a)

Sec 2.5: 1(b)*, 3*, 4*, 7

We only discuss * problems in discussion section.