Instructions

- Make a document (either in .doc and .pdf) containing code, results. Named the file using both of your Roll nos. *i.e.* 140100001_140100002
- Write Up: (i) Software in which code is written, (ii) output results for each case, and (iii) explanation of results.
- Please upload all assignments to turnitin

Assignment 1
Due date: 10/08/2017, time: 12 midnight
Rootfindings

Write a code for root finding of equations using (a) bisection method (b) Newton method (c) Secant method. Use the code for solving the following equations,

1. $x - cosx$
2. $x^6 - x - 1$

In each case, stop the iterations once the difference between two consecutive values are less than 10^{-6}.

A. For bisection method: Choose interval [0 1] for first part and [1 2] for second part.
B. For Newton method: Choose starting guess as 0.5 for first part and 1.5 for second part.
C. For Secant method: Choose the initial guesses as (0, 1) for first part and (1, 2) for second part.

Comment on the number of iteration and convergence with graph.