MATH 321-01 (161)
MATLAB # 1
Due Oct. 23, 2016

We would like to compare the performance of the four root finding methods: Bisection, fixed-point, Newton, and Secant method.
Write a MATLAB code to test these methods on the following function:

$f(x) = x - \cos x$ on the interval $[0, 1]$

using TOL $= 10^{-}5$

Arrange your output in a table similar to Table 2.2 in your book. What is your observation?

MATLAB hints:
You may use the following to define your function:
$f = @(x)\ \ (x)^2 - 2 * (x)$
this define, for example, the function $f(x) = x^2 - 2x$ then you may use $f(2)$ to evaluate your function at $x = 2$. Try to define other functions.