

MATH 321-01 (151)
MATLAB # 1
Due Sep. 10, 2015 (11:00 pm)

Write a program implementing Algorithm 2.1 (Bisection) and use it to calculate the real root of the following equations. Use $TOL = 10^{-5}$.

a) $e^x - 3x^2 = 0$

b) $e^x = \frac{1}{0.1+x^2}$

MATLAB hints:

MATLAB uses the command "exp(x)" to write the exponential function e^x

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.