

## Homework 1, Computer Problems (Math 174/274)

(I) Write your own program to implement the bisection algorithm, and use it to find roots of the following functions on the given intervals:

(a)  $x^{-1} - \tan(x)$  on  $[0, \pi/2]$

(b)  $2^{-x} + e^x + 2 \cos x - 6$  on  $[1, 3]$ .

(II) Find a root of the functions  $x - \tan x$  on  $[1, 2]$ .