Lab: Bisection method

1. Implement the bisection method as a Matlab function

   function x=bisection442(f,a,b,tol)

in which \( f \) is a user-supplied continuous function, \( a \) and \( b \) are the left- and right-endpoints, respectively, of an interval containing a sign-change, and \( tol \) is a positive number. The function should return a number \( y \) such that \([x-tol,x+tol]\) contains a sign change.

2. Illustrate the bisection method on a concrete example.