AE 2780

Aircraft Design

**Dr. Meeks**

**HW #01**

**Gabriel Porter**

# FS 2024

**Missouri University of Science and Technology**

1. **A screenshot of a computer

   Description automatically generated**
   1. The convergence tolerence is basically how close to zero the function must be before the program stops iterating. At default settings the program will stop iterating once the function is less than . (tol)
   2. The program currently allows up to 1000 iterations before exiting without finding a root (maxiter).
   3. The boolean operator used to determine when the iterative root solver ends is “while abs(Fx(n1))>tol && n1<maxiter”
2. For ,
   1. The root is which occurs at
   2. **A graph on a screen

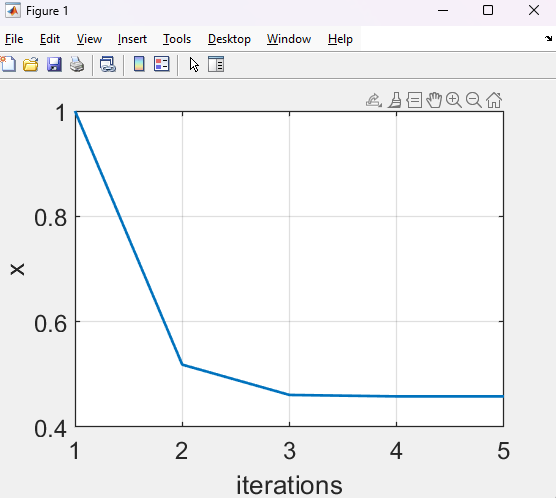
      Description automatically generated**
   3. **A graph on a screen

      Description automatically generated**
3. **For ,** 
   1. \*\*\*ASSUMING log is intended to be log base 10.
      1. OR \*\*\*ASSUMING log is intended to be natural log.
   2. For log base 10, at
      1. OR for natural log, at
   3. For log base 10, A graph on a screen

      Description automatically generated
      1. OR for natural log, A graph on a computer screen

         Description automatically generated
   4. For log base 10, A screen shot of a graph

      Description automatically generated
      1. OR for natural log, A screen shot of a graph

         Description automatically generated
4. **For ,** 
   1. The root is , which occurs at
   2. 
   3. 