Bisection Method:

1. Consider finding the root of f(*x*) = *x*2 - 3. Let the tolerance value be 0.01 and number of maximum iterations be 8. Start with the interval [1, 2].
2. Create the above function in MATLAB. You will need to define x as a symbol!
3. Consider a=1 and b=2. Then calculate f(a) and f(b).
4. For every iteration, do the following
5. Let c contain the midpoint of a and b.
6. If , then you have converged to your solution.
7. Print your solution.
8. Update the value of a or b based on the computed value f(c). So for every iteration, based on f(c), either a will be replaced by c for b will be replaced by c.
9. Plot the function and the approximated point.