###### 

HW#2 (Due Date : 2/16/2016)

1. The Newton-Raphson method formula for finding the square root of a real number  from the equation is,
2. 
3. 
4. 
5. 
6. The next iterative value of the root of using the Newton-Raphson method, if the initial guess is 3, is
7. 1.5
8. 2.067
9. 2.167
10. 3.000
11. To find the root of, a scientist is using the bisection method. At the beginning of an iteration, the lower and upper guesses of the root are  and. At the end of the iteration, the absolute relative approximate error in the estimated value of the root would be
12. 
13. 
14. 
15. 
16. For an equation like, a root exists at . The bisection method cannot be adopted to solve this equation in spite of the root existing at because the function 
17. is a polynomial
18. has repeated roots at 
19. is always non-negative
20. has a slope equal to zero at 
21. The secant method formula for finding the square root of a real number  from the equation is
22. 
23. 
24. 
25. 
26. The next iterative value of the root of  using secant method, if the initial guesses are 3 and 4, is
27. 2.2857
28. 2.5000
29. 5.5000
30. 5.7143
31. Code Bisection method on Matlab.
32. Code Secant Method on Matlab.