IE 310: Homework 5 — Due:June 8st 23:59

Note: You need to report your initial point(s) and value(s), point(s) and value(s) at each iteration, and final local optimum point and value in a spreadsheet table preferably. Summarize your answers in a brief report which includes your tables for each method. Please name your folder as "Name-Surname-ID-Assignement5". Submit your folders via Moodle page until due time.

Initial point is (0.8,1.8)

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********** Bisection **********
The value of Bisection root at iteration 1 is : 1.3
The value of Bisection at iteration 1 is : 99.481
The value of Bisection root at iteration 2 is : 1.55
The value of Bisection at iteration 2 is : 99.7441
The value of Bisection root at iteration 3 is : 1.675
The value of Bisection at iteration 3 is : 99.89
The value of Bisection root at iteration 4 is : 1.7375
The value of Bisection at iteration 4 is : 99.9552
The value of Bisection root at iteration 5 is : 1.76875
The value of Bisection at iteration 5 is : 99.9846
The value of Bisection root at iteration 6 is : 1.78438
The value of Bisection at iteration 6 is : 99.9983
The value of Bisection root at iteration 7 is : 1.79219
The value of Bisection at iteration 7 is : 100.005
The value of Bisection root at iteration 8 is : 1.79609
The value of Bisection at iteration 8 is : 100.008
The value of Bisection root at iteration 9 is : 1.79805
The value of Bisection at iteration 9 is : 100.01
The value of Bisection root at iteration 10 is : 1.79902
The value of Bisection at iteration 10 is : 100.011
The value of Bisection root at iteration 11 is : 1.79951
The value of Bisection at iteration 11 is : 100.011
The value of Bisection root at iteration 12 is : 1.79976
The value of Bisection at iteration 12 is : 100.011
The value of Bisection root at iteration 13 is : 1.79988
The value of Bisection at iteration 13 is : 100.011
The value of Bisection root at iteration 14 is : 1.79994
The value of Bisection at iteration 14 is : 100.011
The value of Bisection root is : 1.79994
The value of Bisection is : 100.011
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******** Golden Section *******
The value of the Golden Section root is : 1
The value of Golden Section is : 99.415
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********** Newton's **********
The value of Newton root at iteration 1 is : 1.17303
The value of Newton at iteration 1 is : 0.328269
The value of Newton root at iteration 2 is : 1.09061
The value of Newton at iteration 2 is : -0.0133106
The value of Newton root at iteration 3 is : 1.09373
The value of Newton at iteration 3 is : -8.75485e-06
The value of Newton root at iteration 4 is : 1.09374
The value of Newton at iteration 4 is : -3.97439e-12
The value of Newton root is : 1.09374
The value of Newton is : -3.97439e-12
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*********** Secant ************
The value of Secant root at iteration 1 is : 1.38975
The value of Secant at iteration 1 is : 99.5623
The value of Secant root at iteration 2 is : 3.40327
The value of Secant at iteration 2 is : 98.5221
The value of Secant root at iteration 3 is : 4.65525
The value of Secant at iteration 3 is : 97.9647
The value of Secant root at iteration 4 is : 3.57818
The value of Secant at iteration 4 is : 98.6264
The value of Secant root at iteration 5 is : 3.83302
The value of Secant at iteration 5 is : 98.8104
The value of Secant root at iteration 6 is : 4.59534
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The value of Secant at iteration 6 is : 98.1062
The value of Secant root at iteration 7 is : 3.98079
The value of Secant at iteration 7 is : 98.8609
The value of Secant root at iteration 8 is : 4.00383
The value of Secant at iteration 8 is : 98.862
The value of Secant root at iteration 9 is : 4.0037
The value of Secant at iteration 9 is : 98.862
The value of Secant root at iteration 10 is : 4.0037
The value of Secant at iteration 10 is : 98.862
The value of Secant root is : 4.0037
The value of Secant is : 98.862
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