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Newton roots
x0 = 0.426435; eps = 0.000001; kMax = 5
k = 0 xk = 0.421897; f(xk) = 0.000061
k = 1 xk = 0.421878; f(xk) = -0.000003
k = 2 xk = 0.421879; f(xk) = 0.000000
method secant
k = 0 xk = 0.421882; xk - xk-1 = 0.000120; xk - root = 0.000003; f(xk) =
0.000010
k = 1 xk = 0.421879; xk - xk-1 = 0.000003; xk - root = 0.000000; f(xk) =
0.000000
k = 2 xk = 0.421879; xk - xk-1 = 0.000000; xk - root = 0.000000; f(xk) = -
0.000000
method chord
k = 0 xk = 0.4218862; xk - xk-1 = 0.0000036; xk - root = 0.0000072; f(xk) =
0.0000250
k = 1 xk = 0.4218826; xk - xk-1 = 0.0000037; xk - root = 0.0000037; f(xk) =
0.0000127
method iteration
k = 0 xk = 0.42332; xk - xk-1 = 0.00114; xk - root = 0.00144; f(xk) = 0.00488
k = 1 xk = 0.42268; xk - xk-1 = 0.00064; xk - root = 0.00080; f(xk) = 0.00272
k = 2 xk = 0.42232; xk - xk-1 = 0.00036; xk - root = 0.00044; f(xk) = 0.00150
k = 3 xk = 0.42212; xk - xk-1 = 0.00020; xk - root = 0.00024; f(xk) = 0.00083
k = 4 xk = 0.42201; xk - xk-1 = 0.00011; xk - root = 0.00013; f(xk) = 0.00046
difference (secant) of roots and quantity of iterations: 0.00000; 0
difference (chord) of roots and quantity of iterations: 0.00000; 1
difference (iteration) of roots and quantity of iterations: 0.00013; -2
Newton roots
x0 = 0.582060; eps = 0.000001; kMax = 5
k = 0 xk = 0.577621; f(xk) = -0.000046
k = 1 xk = 0.577610; f(xk) = -0.000002
k = 2 xk = 0.577609; f(xk) = -0.000000
method secant
k = 0 xk = 0.577613; xk - xk-1 = 0.000118; xk - root = 0.000003; f(xk) = -
0.000013
k = 1 xk = 0.577609; xk - xk-1 = 0.000003; xk - root = 0.000000; f(xk) = -
0.000000
k = 2 xk = 0.577609; xk - xk-1 = 0.000000; xk - root = 0.000000; f(xk) = -
0.000000
method chord
k = 0 xk = 0.5775725; xk - xk-1 = 0.0000106; xk - root = 0.000365; f(xk) =
0.0001382
k = 1 xk = 0.5775831; xk - xk-1 = 0.0000121; xk - root = 0.000259; f(xk) =
0.0000983
k = 2 xk = 0.5775952; xk - xk-1 = 0.0000139; xk - root = 0.000138; f(xk) =
0.0000525
method iteration
k = 0 xk = 0.60874; xk - xk-1 = 0.00890; xk - root = 0.03113; f(xk) = -
0.14113
k = 1 xk = 0.59984; xk - xk-1 = 0.00624; xk - root = 0.02223; f(xk) = -
0.09609
k = 2 xk = 0.59360; xk - xk-1 = 0.00443; xk - root = 0.01599; f(xk) = -
0.06670
k = 3 xk = 0.58917; xk - xk-1 = 0.00317; xk - root = 0.01156; f(xk) = -
0.04698
k = 4 xk = 0.58600; xk - xk-1 = 0.00228; xk - root = 0.00839; f(xk) = -
0.03344

difference (secant) of roots and quantity of iterations: 0.00000; 0
difference (chord) of roots and quantity of iterations: 0.00014; 0
difference (iteration) of roots and quantity of iterations: 0.00839; -2
Newton roots
x0 = 0.999310; eps = 0.000001; kMax = 5
k = 0 xk = 0.994804; f(xk) = -0.000013
k = 1 xk = 0.994805; f(xk) = 0.000000

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method secant
k = 0 xk = 0.994808; xk - xk-1 = 0.000114; xk - root = 0.000003; f(xk) =
0.000106
k = 1 xk = 0.994805; xk - xk-1 = 0.000003; xk - root = 0.000000; f(xk) =
0.000000
k = 2 xk = 0.994805; xk - xk-1 = 0.000000; xk - root = 0.000000; f(xk) =
0.000000
method chord
k = 0 xk = 0.9948526; xk - xk-1 = 0.0000173; xk - root = 0.0000481; f(xk) =
0.0016308
k = 1 xk = 0.9948352; xk - xk-1 = 0.0000307; xk - root = 0.0000307; f(xk) =
0.0010423
method iteration
k = 0 xk = 0.99842; xk - xk-1 = 0.00784; xk - root = 0.00361; f(xk) = 0.12523
k = 1 xk = 0.99145; xk - xk-1 = 0.00697; xk - root = 0.00336; f(xk) = -
0.11159
k = 2 xk = 0.99770; xk - xk-1 = 0.00625; xk - root = 0.00290; f(xk) = 0.10001
k = 3 xk = 0.99213; xk - xk-1 = 0.00557; xk - root = 0.00267; f(xk) = -
0.08921
k = 4 xk = 0.99713; xk - xk-1 = 0.00500; xk - root = 0.00232; f(xk) = 0.07994
difference (secant) of roots and quantity of iterations: 0.00000; -1
difference (chord) of roots and quantity of iterations: 0.00003; 0
difference (iteration) of roots and quantity of iterations: 0.00232; -3

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