

The given equation is:  $\sqrt{x} - \cos(x) = 0$ .

Enter the left end point of the interval: 0

Enter the right end point of the interval: 1

Enter the maximum number of iterations: 10

Enter the measure of accuracy (tolerance):  $10^{-5}$

The Bisection iterations are given as:

k	a_k	b_k	x_k	f(x_k)
1.000000000	0.000000000	1.000000000	0.500000000	-0.170475781
2.000000000	0.500000000	1.000000000	0.750000000	0.134336535
3.000000000	0.500000000	0.750000000	0.625000000	-0.020393704
4.000000000	0.625000000	0.750000000	0.687500000	0.056321251
5.000000000	0.625000000	0.687500000	0.656250000	0.017806728
6.000000000	0.625000000	0.656250000	0.640625000	-0.001331824
7.000000000	0.640625000	0.656250000	0.648437500	0.008227740
8.000000000	0.640625000	0.648437500	0.644531250	0.003445545
9.000000000	0.640625000	0.644531250	0.642578125	0.001056259
10.000000000	0.640625000	0.642578125	0.641601562	-0.000137933

Maximum number of iteration reached.

An Approximate root of the given equation is 0.641601562.

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