19p0012 Aitzaz Tahir Ch Date

$f(x) = x^2 - 81$ $\quad a = 5,\ b = 5.0,\ p = \frac{a+b}{2}$

i	a	p	b	f(a)	f(p)	f(b)
0	5	27.5	50	-56	675.25	2419
1	5	16.25	27.5	-56	183.0625	675.25
2	5	10.625	16.25	-56	31.890625	183.0625
3	5	7.8125	10.625	-56	-19.96484375	31.890625
4	7.8125	9.21875	10.625	-19.96484375	3.98535156	31.890625
5	7.8125	8.515625	9.21875	-19.96484375	-8.48413085	3.98535156
6	8.515625	8.8671875	9.21875	-8.48413085	-2.37298583	3.98535156
7	8.8671875	9.04296875	9.21875	-2.37298583	0.77528381	3.98535156
8	8.8671875	8.95507812	9.04296875	-2.37298583	-0.80657586	0.77528381
9	8.95507812	8.99902344	9.04296875	-0.80657586	-0.01757712	0.77528381
10	8.99902344	9.02099609	9.04296875	-0.01757712	0.37837045	0.77528381
11	8.99902344	9.01000977	9.02099609	-0.01757712	0.18027605	0.37837045
12	8.99902344	9.0045166	9.01000977	-0.01757712	0.08131919	0.18027605
13	8.99902344	9.00177002	9.0045166	-0.01757712	0.03186349	0.08131919
14	8.99902344	9.00039673	9.00177002	-0.01757712	0.00714129	0.03186349

Root of the function $f(x) = x^2 - 81$ is 9.00039673 which is correct upto 3 decimal places