

EXAMPLES OF FALSE POSITION APPROXIMATIONS

LX	LY	RX	RY	TRIAL	f(TRIAL)	
0	-1	1	1	0.5	-0.375	$f(x) = x^3+x-1$
0.5	-0.375	1	1	0.63636364	-0.105935387	
0.63636364	-0.105935387	1	1	0.67119565	-0.026428288	
0.67119565	-0.026428288	1	1	0.67966165	-0.006375484	
0.67966165	-0.006375484	1	1	0.68169102	-0.001525358	
0.68169102	-0.001525358	1	1	0.68217582	-0.000364224	
0.68217582	-0.000364224	1	1	0.68229153	-8.6928E-05	
0.68229153	-8.6928E-05	1	1	0.68231915	-2.07444E-05	
0.68231915	-2.07444E-05	1	1	0.68232574	-4.9503E-06	
0.68232574	-4.9503E-06	1	1	0.68232731	-1.1813E-06	
0.68232731	-1.1813E-06	1	1	0.68232769	-2.81893E-07	

LX	LY	RX	RY	TRIAL	f(TRIAL)	
1	-1	2	2	1.33333333	-0.222222222	$f(x) = x^2-2$
1.33333333	-0.222222222	2	2	1.4	-0.04	
1.4	-0.04	2	2	1.41176471	-0.006920415	
1.41176471	-0.006920415	2	2	1.4137931	-0.001189061	
1.4137931	-0.001189061	2	2	1.41414141	-0.000204061	
1.41414141	-0.000204061	2	2	1.41420118	-3.50128E-05	
1.41420118	-3.50128E-05	2	2	1.41421144	-6.00729E-06	
1.41421144	-6.00729E-06	2	2	1.4142132	-1.03069E-06	
1.4142132	-1.03069E-06	2	2	1.4142135	-1.76838E-07	
1.4142135	-1.76838E-07	2	2	1.41421355	-3.03407E-08	
1.41421355	-3.03407E-08	2	2	1.41421356	-5.20563E-09	
1.41421356	-5.20563E-09	2	2	1.41421356	-8.93146E-10	

LX	LY	RX	RY	TRIAL	f(TRIAL)	
0.5	-4	1	1	0.9	-0.568	$f(x) = 8x^3-6x-1$
0.9	-0.568	1	1	0.93622449	-0.052418768	
0.93622449	-0.052418768	1	1	0.93940101	-0.004428329	
0.93940101	-0.004428329	1	1	0.93966818	-0.000371257	
0.93966818	-0.000371257	1	1	0.93969057	-3.1105E-05	
0.93969057	-3.1105E-05	1	1	0.93969245	-2.60594E-06	
0.93969245	-2.60594E-06	1	1	0.93969261	-2.18321E-07	
0.93969261	-2.18321E-07	1	1	0.93969262	-1.82905E-08	
0.93969262	-1.82905E-08	1	1	0.93969262	-1.53234E-09	
0.93969262	-1.53234E-09	1	1	0.93969262	-1.28377E-10	

LX	LY	RX	RY	TRIAL	f(TRIAL)	f(x) = x ³ -2
1	-1	2	6	1.14285714	-0.50728863	
1.14285714	-0.50728863	2	6	1.20967742	-0.229855493	
1.20967742	-0.229855493	2	6	1.238837	-0.098735647	
1.238837	-0.098735647	2	6	1.25115987	-0.041433057	
1.25115987	-0.041433057	2	6	1.25629553	-0.01721583	
1.25629553	-0.01721583	2	6	1.25842334	-0.007123928	
1.25842334	-0.007123928	2	6	1.25930278	-0.00294286	
1.25930278	-0.00294286	2	6	1.2596659	-0.001214823	
1.2596659	-0.001214823	2	6	1.25981577	-0.000501338	
1.25981577	-0.000501338	2	6	1.25987761	-0.000206869	
1.25987761	-0.000206869	2	6	1.25990313	-8.53568E-05	
1.25990313	-8.53568E-05	2	6	1.25991365	-3.52186E-05	
1.25991365	-3.52186E-05	2	6	1.259918	-1.45313E-05	
1.259918	-1.45313E-05	2	6	1.25991979	-5.9956E-06	
1.25991979	-5.9956E-06	2	6	1.25992053	-2.47378E-06	
1.25992053	-2.47378E-06	2	6	1.25992084	-1.02068E-06	
1.25992084	-1.02068E-06	2	6	1.25992096	-4.21131E-07	
1.25992096	-4.21131E-07	2	6	1.25992101	-1.73758E-07	
1.25992101	-1.73758E-07	2	6	1.25992103	-7.16925E-08	
1.25992103	-7.16925E-08	2	6	1.25992104	-2.95803E-08	
1.25992104	-2.95803E-08	2	6	1.25992105	-1.22048E-08	
1.25992105	-1.22048E-08	2	6	1.25992105	-5.03568E-09	

LX	LY	RX	RY	TRIAL	f(TRIAL)	f(x) = x ² -5
2	-1	3	4	2.2	-0.16	
2.2	-0.16	3	4	2.23076923	-0.023668639	
2.23076923	-0.023668639	3	4	2.23529412	-0.003460208	
2.23529412	-0.003460208	3	4	2.23595506	-0.000504987	
2.23595506	-0.000504987	3	4	2.2360515	-7.36798E-05	
2.2360515	-7.36798E-05	3	4	2.23606557	-1.07498E-05	
2.23606557	-1.07498E-05	3	4	2.23606763	-1.56838E-06	
2.23606763	-1.56838E-06	3	4	2.23606793	-2.28823E-07	
2.23606793	-2.28823E-07	3	4	2.23606797	-3.33848E-08	
2.23606797	-3.33848E-08	3	4	2.23606798	-4.87078E-09	
2.23606798	-4.87078E-09	3	4	2.23606798	-7.10638E-10	

f(x) = x²-5
This function
is
< 0 at 2 and
> 0 at 3
so it has a
zero
inbetween.