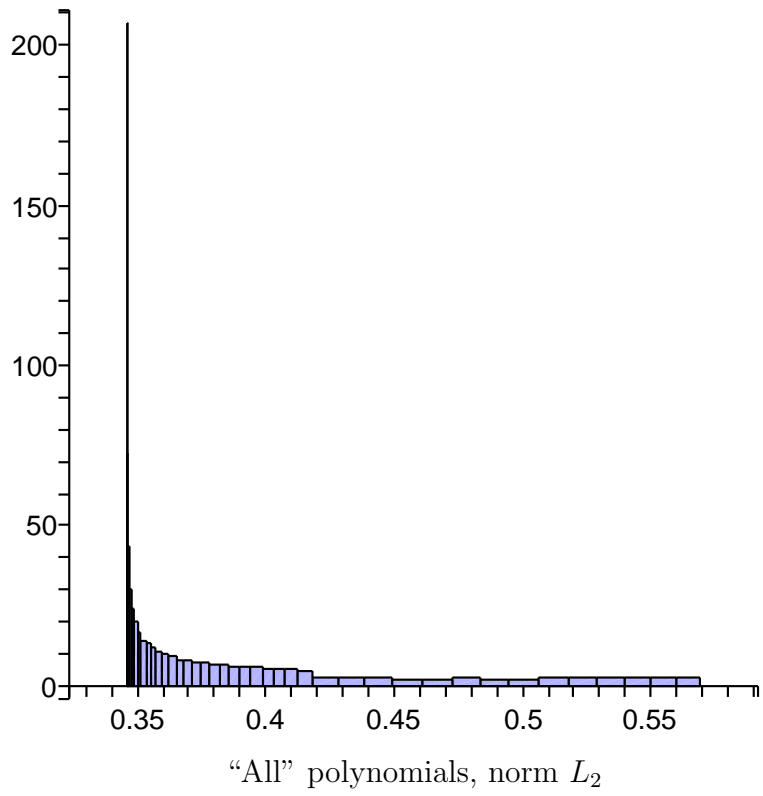Number: $\xi = 0.6823...$ Equation: $x^3 + x - 1 = 0$. "All" optimal polynomials.

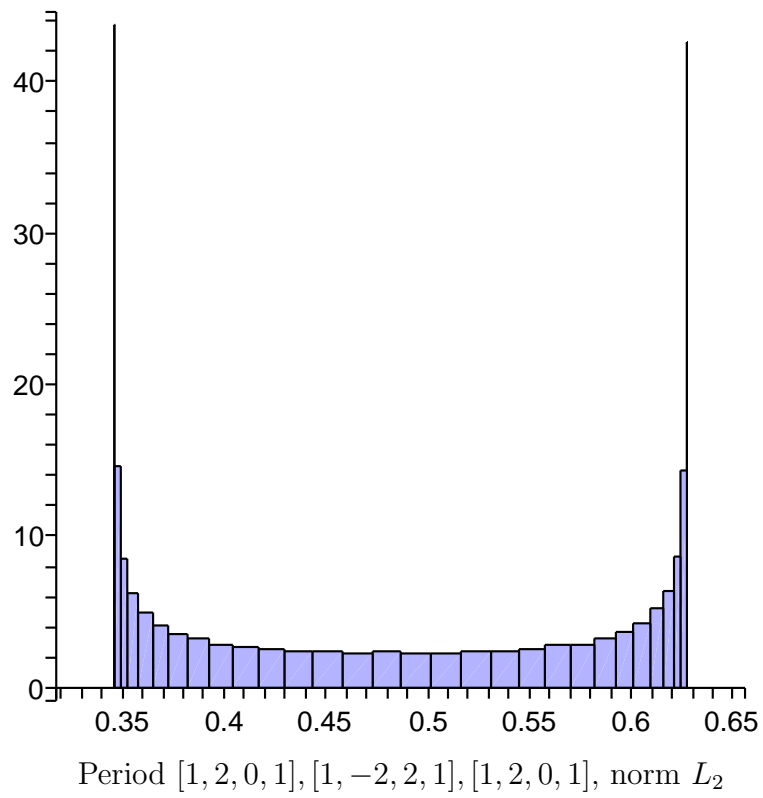|						
1	$-x^2 - x + 1$	$[1, -1, -1, 1]$	$x - 1$	-1	0.1478990357	0.4436971071
2	$-2x^2 + 1$	$[1, -1, 1, 1]$	$-x^2$	-1	0.2754301450	0.3442876812
3	$-2x^2 - 3x + 3$	$[1, 3, 0, 1]$	$1 - x$	-1	0.1968671229	0.4812307448
4	$-5x^2 - x + 3$	$[1, 2, 0, 1]$	$-x^2$	-1	0.2545990803	0.3564387124
5	$-8x^2 + 4x + 1$	$[1, -2, 2, 1]$	$-x^2$	-1	0.3034470591	0.3840501841
6	$-4x^2 - 9x + 8$	$[1, 2, -1, 1]$	$-x$	-1	0.2620481187	0.5208610754
7	$-12x^2 - 5x + 9$	$[0, 1, 1, 1]$	$-x^2$	0	0.2168925608	0.3765495847
8	$-21x^2 + 7x + 5$	$[1, 2, 0, 1]$	$-x^2$	1	0.3092479937	0.3611399472
9	$-7x^2 - 26x + 21$	$[1, 2, -1, 1]$	$-x$	1	0.3234506779	0.5579045716
10	$-28x^2 - 19x + 26$	$[0, 1, 1, 1]$	$-x^2$	0	0.1746479810	0.4056555783
11	$-54x^2 + 9x + 19$	$[1, 2, 0, 1]$	$-x^2$	-1	0.3024274191	0.3482686123
12	$-63x^2 - 64x + 73$	$[1, 2, 0, 1]$	$1 - x$	-1	0.1755733393	0.4412890424
13	$-136x^2 - x + 64$	$[1, 2, 0, 1]$	$-x^2$	-1	0.2837114104	0.3465555740
14	$-200x^2 + 135x + 1$	$[1, -2, 2, 1]$	$-x^2$	-1	0.2856571602	0.4158168452
15	$-135x^2 - 201x + 200$	$[1, 2, -1, 1]$	$-x$	-1	0.1968658138	0.4805843357
16	$-335x^2 - 66x + 201$	$[0, 1, 1, 1]$	$-x^2$	0	0.2545973873	0.3561346140
17	$-536x^2 + 269x + 66$	$[1, 2, 0, 1]$	$-x^2$	1	0.3034450412	0.3844743394
18	$-269x^2 - 602x + 536$	$[1, 2, -1, 1]$	$-x$	1	0.2611779546	0.5203761965
19	$-805x^2 - 333x + 602$	$[0, 1, 1, 1]$	$-x^2$	0	0.2174309842	0.3762343680
20	$-1407x^2 + 472x + 333$	$[1, 2, 0, 1]$	$-x^2$	-1	0.3092459373	0.3613698338
21	$-472x^2 - 1740x + 1407$	$[1, 2, -1, 1]$	$-x$	-1	0.3227062472	0.5574594802
22	$1879x^2 + 1268x - 1740$	$[0, -1, -1, 1]$	x^2	0	0.1752058382	0.4052358376
23	$-3619x^2 + 611x + 1268$	$[1, 2, 0, 1]$	x^2	-1	0.3025926094	0.3483643484
24	$-4230x^2 - 4276x + 4887$	$[1, -2, 0, 1]$	$1 - x$	-1	0.1752851134	0.4408030216
25	$9117x^2 + 46x - 4276$	$[1, -2, 0, 1]$	x^2	-1	0.2840209674	0.3465054450
26	$-13393x^2 + 9071x + 46$	$[1, -2, -2, 1]$	x^2	-1	0.2853568928	0.4162612588
27	$-9071x^2 - 13439x + 13393$	$[1, -2, -1, 1]$	$-x$	-1	0.1960467315	0.4800710651
28	$-22464x^2 - 4368x + 13439$	$[0, 1, 1, 1]$	$-x^2$	0	0.2550269142	0.3559428538
29	$35903x^2 - 18096x - 4368$	$[1, -2, 0, 1]$	x^2	1	0.3032909492	0.3848284054
30	$-18096x^2 - 40271x + 35903$	$[1, 2, 1, 1]$	x	1	0.2603609627	0.5198770178
31	$-53999x^2 - 22175x + 40271$	$[0, -1, 1, 1]$	$-x^2$	0	0.2179458541	0.3759164134
32	$-94270x^2 + 31824x + 22175$	$[1, -2, 0, 1]$	$-x^2$	1	0.3092504418	0.3616050380
33	$-31824x^2 - 116445x + 94270$	$[1, 2, -1, 1]$	$-x$	1	0.3219571494	0.5570146016
34	$-126094x^2 - 84621x + 116445$	$[0, 1, 1, 1]$	$-x^2$	0	0.1757645812	0.4048172994
35	$-242539x^2 + 41473x + 84621$	$[1, 2, 0, 1]$	$-x^2$	-1	0.3027553471	0.3484617454
36	$-284012x^2 - 285687x + 327160$	$[1, 2, 0, 1]$	$1 - x$	-1	0.1749960563	0.4403176121
37	$-611172x^2 - 1675x + 285687$	$[1, 2, 0, 1]$	$-x^2$	-1	0.2843288302	0.3464571896
38	$-896859x^2 + 609497x + 1675$	$[1, -2, 2, 1]$	$-x^2$	-1	0.2850548783	0.4167066054
39	$-609497x^2 - 898534x + 896859$	$[1, 2, -1, 1]$	$-x$	-1	0.1952280585	0.4795578830
40	$-1506356x^2 - 289037x + 898534$	$[0, 1, 1, 1]$	$-x^2$	0	0.2554551045	0.3557528329

41	$-2404890\,x^2 + 1217319\,x + 289037$	$[1, 2, 0, 1]$	$-x^2$	1	0.3031348805	0.3851838271
42	$-1217319\,x^2 - 2693927\,x + 2404890$	$[1, 2, -1, 1]$	$-x$	1	0.2595435218	0.5193773986
43	$-3622209\,x^2 - 1476608\,x + 2693927$	$[0, 1, 1, 1]$	$-x^2$	0	0.2184598821	0.3755999327
44	$-6316136\,x^2 + 2145601\,x + 1476608$	$[1, 2, 0, 1]$	$-x^2$	-1	0.3092528899	0.3618419065
45	$-2145601\,x^2 - 7792744\,x + 6316136$	$[1, 2, -1, 1]$	$-x$	-1	0.3212067836	0.5565687886
46	$-8461737\,x^2 - 5647143\,x + 7792744$	$[0, 1, 1, 1]$	$-x^2$	0	0.1763230430	0.4043998508
47	$-16254481\,x^2 + 2814594\,x + 5647143$	$[1, 2, 0, 1]$	$-x^2$	1	0.3029161149	0.3485609814
48	$-19069075\,x^2 - 19087030\,x + 21901624$	$[1, 2, 0, 1]$	$1 - x$	1	0.1747060750	0.4398328201
49	$-40970699\,x^2 - 17955\,x + 19087030$	$[1, 2, 0, 1]$	$-x^2$	1	0.2846349680	0.3464108000
50	$-60057729\,x^2 + 40952744\,x + 17955$	$[1, -2, 2, 1]$	$-x^2$	1	0.2847511292	0.4171528835
51	$-40952744\,x^2 - 60075684\,x + 60057729$	$[1, 2, -1, 1]$	$-x$	1	0.1944098029	0.4790447964
52	$-101010473\,x^2 - 19122940\,x + 60075684$	$[0, 1, 1, 1]$	$-x^2$	0	0.2558819538	0.3555645542
53	$-161086157\,x^2 + 81887533\,x + 19122940$	$[1, 2, 0, 1]$	$-x^2$	-1	0.3029768368	0.3855405996
54	$-81887533\,x^2 - 180209097\,x + 161086157$	$[1, 2, -1, 1]$	$-x$	-1	0.2587256430	0.5188773454
55	$-242973690\,x^2 - 98321564\,x + 180209097$	$[0, 1, 1, 1]$	$-x^2$	0	0.2189730611	0.3752849303
56	$-423182787\,x^2 + 144652126\,x + 98321564$	$[1, 2, 0, 1]$	$-x^2$	1	0.3092532816	0.3620804362
57	$-144652126\,x^2 - 521504351\,x + 423182787$	$[1, 2, -1, 1]$	$-x$	1	0.3204551598	0.5561220469
58	$-567834913\,x^2 - 376852225\,x + 521504351$	$[0, 1, 1, 1]$	$-x^2$	0	0.1768812163	0.4039834974
59	$-1089339264\,x^2 + 190982688\,x + 376852225$	$[1, 2, 0, 1]$	$-x^2$	-1	0.3030749104	0.3486620553
60	$-1280321952\,x^2 - 1275208801\,x + 1466191489$	$[1, 2, 0, 1]$	$1 - x$	-1	0.1744151734	0.4393486520
61	$-2746513441\,x^2 + 5113151\,x + 1275208801$	$[1, 2, 0, 1]$	$-x^2$	-1	0.2849393769	0.3463662768
62	$2751626592\,x^2 + 4016609091\,x - 4021722242$	$[1, -3, 0, 1]$	$x - 1$	-1	0.1940851753	0.4785318123
63	$-6773348834\,x^2 - 1264982499\,x + 4016609091$	$[1, 2, 0, 1]$	x^2	-1	0.2563074564	0.3553780202
64	$-10789957925\,x^2 + 5508366335\,x + 1264982499$	$[1, 2, 2, 1]$	$-x^2$	-1	0.3028168200	0.3858987181
65	$5508366335\,x^2 + 12054940424\,x - 10789957925$	$[1, -2, 1, 1]$	x	-1	0.2579073372	0.5183768650
66	$16298324260\,x^2 + 6546574089\,x - 12054940424$	$[0, -1, 1, 1]$	$-x^2$	0	0.2194853843	0.3749714103
67	$-28353264684\,x^2 + 9751750171\,x + 6546574089$	$[1, 2, 0, 1]$	x^2	-1	0.3092516168	0.3623206239
68	$9751750171\,x^2 + 34899838773\,x - 28353264684$	$[1, 2, 1, 1]$	x	-1	0.3197022880	0.5556743827
69	$38105014855\,x^2 + 25148088602\,x - 34899838773$	$[0, -1, 1, 1]$	$-x^2$	0	0.1774390937	0.4035682448
70	$73004853628\,x^2 - 12956926253\,x - 25148088602$	$[1, -2, 0, 1]$	$-x^2$	-1	0.3032317317	0.3487649657
71	$85961779881\,x^2 + 85196015977\,x - 98152942230$	$[1, 2, 0, 1]$	$1 - x$	-1	0.1741233554	0.4388651144
72	$184114722111\,x^2 - 765763904\,x - 85196015977$	$[1, 2, 0, 1]$	$-x^2$	-1	0.2852420526	0.3463236206
73	$-184880486015\,x^2 - 268544974184\,x + 269310738088$	$[1, -3, 0, 1]$	$x - 1$	-1	0.1938755600	0.4780189375
74	$454191224103\,x^2 + 83664488169\,x - 268544974184$	$[1, 2, 0, 1]$	x^2	-1	0.2567316068	0.3551932333
75	$722736198287\,x^2 - 370526735934\,x - 83664488169$	$[1, 2, 2, 1]$	$-x^2$	-1	0.3026548325	0.3862581779
76	$-370526735934\,x^2 - 806400686456\,x + 722736198287$	$[1, -2, 1, 1]$	x	-1	0.2570886152	0.5178759639
77	$-1093262934221\,x^2 - 435873950522\,x + 806400686456$	$[0, -1, 1, 1]$	$-x^2$	0	0.2199968450	0.3746593769
78	$1899663620677\,x^2 - 657388983699\,x - 435873950522$	$[1, 2, 0, 1]$	x^2	-1	0.3092478956	0.3625624664
79	$-657388983699\,x^2 - 2335537571199\,x + 1899663620677$	$[1, 2, 1, 1]$	x	-1	0.3189481782	0.5552258018
80	$-2557052604376\,x^2 - 1678148587500\,x + 2335537571199$	$[0, -1, 1, 1]$	$-x^2$	0	0.1779966677	0.4031540984

2

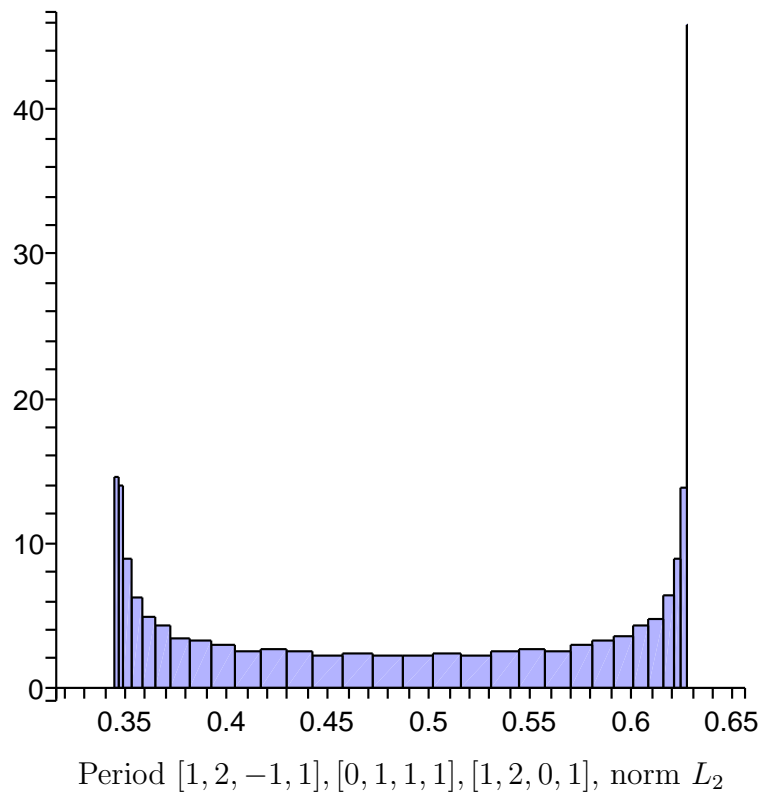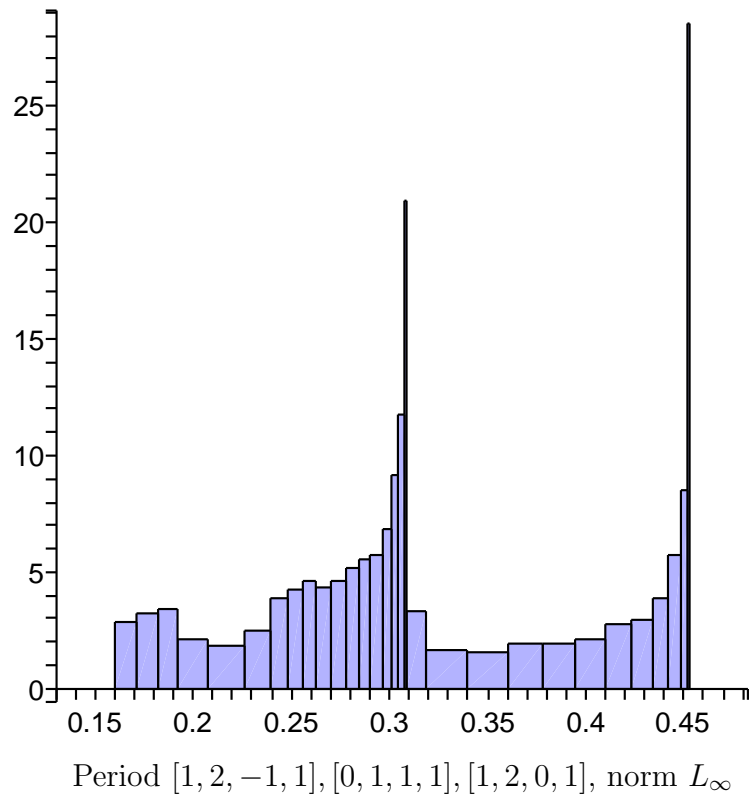"All" polynomials, norm L_∞

"All" polynomials, norm L_2

3

Number: $\xi = 0.6823...$ Equation: $x^3 + x - 1 = 0$. Period $[1, 2, 0, 1], [1, -2, 2, 1], [1, 2, 0, 1]$ with initial polynomials $-x, 1 - x, (x - 1)^2$. Period $-x^2, 1 - x, -x^2$ with initial polynomial $-x$.

1	$-3x + 2$	$[1, 2, 0, 1]$	$-x^2$	0.4228507034	0.6107843493
2	$-2x^2 - 3x + 3$	$[1, -2, 2, 1]$	$-x^2$	0.1968671229	0.4812307448
3	$x^2 - 8x + 5$	$[1, 2, 0, 1]$	$1 - x$	0.4447232802	0.6253921127
4	$-4x^2 - 9x + 8$	$[1, 2, 0, 1]$	$-x^2$	0.2620481187	0.5208610754
5	$-12x^2 - 5x + 9$	$[1, -2, 2, 1]$	$-x^2$	0.2168925608	0.3765495847
6	$-7x^2 - 26x + 21$	$[1, 2, 0, 1]$	$1 - x$	0.3234506779	0.5579045716
7	$-28x^2 - 19x + 26$	$[1, 2, 0, 1]$	$-x^2$	0.1746479810	0.4056555783
8	$-54x^2 + 9x + 19$	$[1, -2, 2, 1]$	$-x^2$	0.3024274191	0.3482686123
9	$-63x^2 - 64x + 73$	$[1, 2, 0, 1]$	$1 - x$	0.1755733393	0.4412890424
10	$-136x^2 - x + 64$	$[1, 2, 0, 1]$	$-x^2$	0.2837114104	0.3465555740
11	$-200x^2 + 135x + 1$	$[1, -2, 2, 1]$	$-x^2$	0.2856571602	0.4158168452
12	$-335x^2 - 66x + 201$	$[1, 2, 0, 1]$	$1 - x$	0.2545973873	0.3561346140
13	$-536x^2 + 269x + 66$	$[1, 2, 0, 1]$	$-x^2$	0.3034450412	0.3844743394
14	$-602x^2 + 805x - 269$	$[1, -2, 2, 1]$	$-x^2$	0.3186605953	0.5324524610
15	$-1407x^2 + 472x + 333$	$[1, 2, 0, 1]$	$1 - x$	0.3092459373	0.3613698338
16	$-1740x^2 + 1879x - 472$	$[1, 2, 0, 1]$	$-x^2$	0.2567766361	0.4931707270
17	$-1268x^2 + 3619x - 1879$	$[1, -2, 2, 1]$	$-x^2$	0.4434710233	0.6174599002
18	$-4887x^2 + 4230x - 611$	$[1, 2, 0, 1]$	$1 - x$	0.2568928195	0.4533717544
19	$-4276x^2 + 9117x - 4230$	$[1, 2, 0, 1]$	$-x^2$	0.4162529591	0.5974232103
20	$-46x^2 + 13393x - 9117$	$[1, -2, 2, 1]$	$-x^2$	0.4182108529	0.6120111893
21	$-13439x^2 + 22464x - 9071$	$[1, 2, 0, 1]$	$1 - x$	0.3737601089	0.5684719843
22	$-4368x^2 + 35903x - 22464$	$[1, 2, 0, 1]$	$-x^2$	0.4444944900	0.6250856000
23	$18096x^2 + 40271x - 35903$	$[1, -2, 2, 1]$	$-x^2$	0.2603609627	0.5198770178
24	$-22175x^2 + 94270x - 53999$	$[1, 2, 0, 1]$	$1 - x$	0.4532285509	0.6270173329
25	$31824x^2 + 116445x - 94270$	$[1, 2, 0, 1]$	$-x^2$	0.3219571494	0.5570146016
26	$126094x^2 + 84621x - 116445$	$[1, -2, 2, 1]$	$-x^2$	0.1757645812	0.4048172994
27	$41473x^2 + 327160x - 242539$	$[1, 2, 0, 1]$	$1 - x$	0.3758738605	0.5884924698
28	$284012x^2 + 285687x - 327160$	$[1, 2, 0, 1]$	$-x^2$	0.1749960563	0.4403176121
29	$611172x^2 + 1675x - 285687$	$[1, -2, 2, 1]$	$-x^2$	0.2843288302	0.3464571896
30	$609497x^2 + 898534x - 896859$	$[1, 2, 0, 1]$	$1 - x$	0.1952280585	0.4795578830
31	$1506356x^2 + 289037x - 898534$	$[1, 2, 0, 1]$	$-x^2$	0.2554551045	0.3557528329
32	$2404890x^2 - 1217319x - 289037$	$[1, -2, 2, 1]$	$-x^2$	0.3031348805	0.3851838271
33	$3622209x^2 + 1476608x - 2693927$	$[1, 2, 0, 1]$	$1 - x$	0.2184598821	0.3755999327
34	$6316136x^2 - 2145601x - 1476608$	$[1, 2, 0, 1]$	$-x^2$	0.3092528899	0.3618419065
35	$7792744x^2 - 8461737x + 2145601$	$[1, -2, 2, 1]$	$-x^2$	0.2584139794	0.4941970896
36	$16254481x^2 - 2814594x - 5647143$	$[1, 2, 0, 1]$	$1 - x$	0.3029161149	0.3485609814
37	$21901624x^2 - 19069075x + 2814594$	$[1, 2, 0, 1]$	$-x^2$	0.2560441976	0.4543709911
38	$19087030x^2 - 40970699x + 19069075$	$[1, -2, 2, 1]$	$-x^2$	0.4171528208	0.5980561705
39	$60057729x^2 - 40952744x - 17955$	$[1, 2, 0, 1]$	$1 - x$	0.2847511292	0.4171528835
40	$60075684x^2 - 101010473x + 40952744$	$[1, 2, 0, 1]$	$-x^2$	0.3750132302	0.5693068801

Period $[1, 2, 0, 1], [1, -2, 2, 1], [1, 2, 0, 1]$, norm L_∞

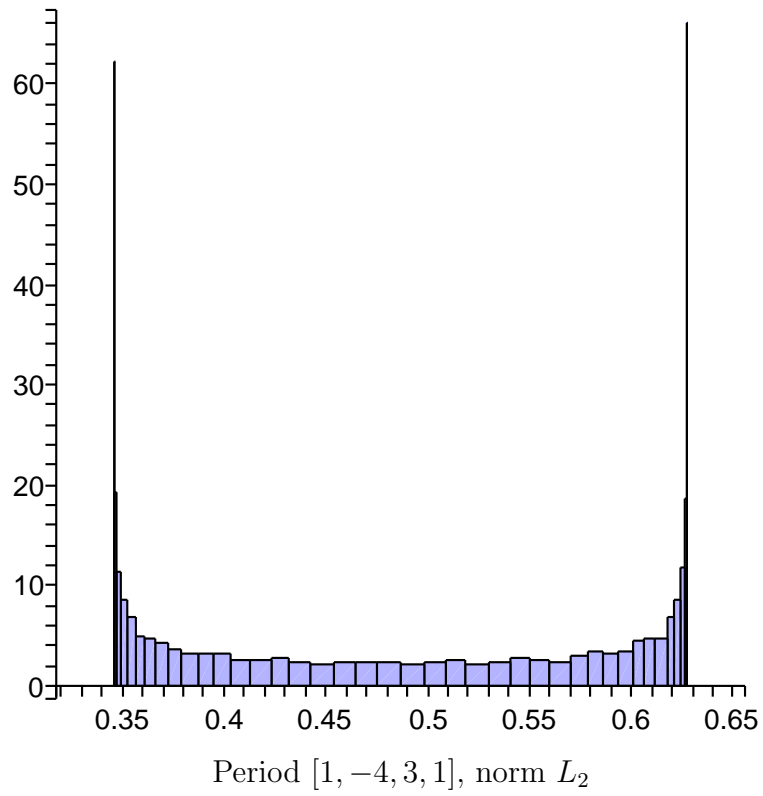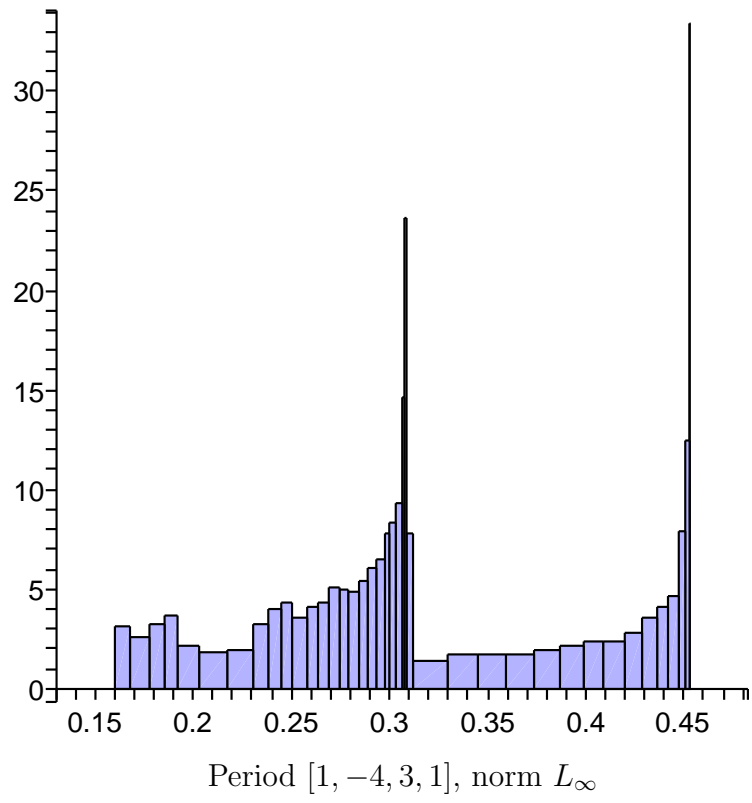Period $[1, 2, 0, 1], [1, -2, 2, 1], [1, 2, 0, 1]$, norm L_2

Number: $\xi = 0.6823...$ Equation: $x^3 + x - 1 = 0$. Period $[1, 2, -1, 1], [0, 1, 1, 1], [1, 2, 0, 1]$ with initial polynomials $x^2, x^2 - x, (x-1)^2$. Period $-x^2, -x^2, -x$ with initial polynomial x^2.

1	$2\,x^2 - 1$	$[1, 2, -1, 1]$	$-x$	0.2754301450	0.3442876812
2	$3\,x^2 - 2\,x$	$[0, 1, 1, 1]$	$-x^2$	0.2885227918	0.4167551437
3	$3\,x^2 - 5\,x + 2$	$[1, 2, 0, 1]$	$-x^2$	0.3731330877	0.5671622934
4	$5\,x^2 - 3 + x$	$[1, 2, -1, 1]$	$-x$	0.2545990803	0.3564387124
5	$-1 + 8\,x^2 - 4\,x$	$[0, 1, 1, 1]$	$-x^2$	0.3034470591	0.3840501841
6	$9\,x^2 - 12\,x + 4$	$[1, 2, 0, 1]$	$-x^2$	0.3178714975	0.5319932701
7	$12\,x^2 - 9 + 5\,x$	$[1, 2, -1, 1]$	$-x$	0.2168925608	0.3765495847
8	$-5 + 21\,x^2 - 7\,x$	$[0, 1, 1, 1]$	$-x^2$	0.3092479937	0.3611399472
9	$7 + 26\,x^2 - 28\,x$	$[1, 2, 0, 1]$	$-x^2$	0.2559590566	0.4926558884
10	$28\,x^2 - 26 + 19\,x$	$[1, 2, -1, 1]$	$-x$	0.1746479810	0.4056555783
11	$-19 + 54\,x^2 - 9\,x$	$[0, 1, 1, 1]$	$-x^2$	0.3024274191	0.3482686123
12	$9 + 73\,x^2 - 63\,x$	$[1, 2, 0, 1]$	$-x^2$	0.2573152352	0.4528728826
13	$63\,x^2 - 73 + 64\,x$	$[1, 2, -1, 1]$	$-x$	0.1755733393	0.4412890424
14	$-64 + 136\,x^2 + x$	$[0, 1, 1, 1]$	$-x^2$	0.2837114104	0.3465555740
15	$-1 + 200\,x^2 - 135\,x$	$[1, 2, 0, 1]$	$-x^2$	0.2856571602	0.4158168452
16	$135\,x^2 - 200 + 201\,x$	$[1, 2, -1, 1]$	$-x$	0.1968658138	0.4805843357
17	$-201 + 335\,x^2 + 66\,x$	$[0, 1, 1, 1]$	$-x^2$	0.2545973873	0.3561346140
18	$-66 + 536\,x^2 - 269\,x$	$[1, 2, 0, 1]$	$-x^2$	0.3034450412	0.3844743394
19	$269\,x^2 - 536 + 602\,x$	$[1, 2, -1, 1]$	$-x$	0.2611779546	0.5203761965
20	$-602 + 805\,x^2 + 333\,x$	$[0, 1, 1, 1]$	$-x^2$	0.2174309842	0.3762343680
21	$-333 + 1407\,x^2 - 472\,x$	$[1, 2, 0, 1]$	$-x^2$	0.3092459373	0.3613698338
22	$472\,x^2 - 1407 + 1740\,x$	$[1, 2, -1, 1]$	$-x$	0.3227062472	0.5574594802
23	$1879\,x^2 + 1268\,x - 1740$	$[0, 1, 1, 1]$	$-x^2$	0.1752058382	0.4052358376
24	$-1268 + 3619\,x^2 - 611\,x$	$[1, 2, 0, 1]$	$-x^2$	0.3025926094	0.3483643484
25	$611\,x^2 - 3619 + 4887\,x$	$[1, 2, -1, 1]$	$-x$	0.3764947259	0.5888472144
26	$-4887 + 4230\,x^2 + 4276\,x$	$[0, 1, 1, 1]$	$-x^2$	0.1752851134	0.4408030216
27	$9117\,x^2 + 46\,x - 4276$	$[1, 2, 0, 1]$	$-x^2$	0.2840209674	0.3465054450
28	$-46\,x^2 + 13393\,x - 9117$	$[1, 2, -1, 1]$	$-x$	0.4182108529	0.6120111893
29	$-13393 + 9071\,x^2 + 13439\,x$	$[0, 1, 1, 1]$	$-x^2$	0.1960467315	0.4800710651
30	$-13439 + 22464\,x^2 + 4368\,x$	$[1, 2, 0, 1]$	$-x^2$	0.2550269142	0.3559428538
31	$-4368\,x^2 + 35903\,x - 22464$	$[1, 2, -1, 1]$	$-x$	0.4444944900	0.6250856000
32	$18096\,x^2 + 40271\,x - 35903$	$[0, 1, 1, 1]$	$-x^2$	0.2603609627	0.5198770178
33	$-40271 + 53999\,x^2 + 22175\,x$	$[1, 2, 0, 1]$	$-x^2$	0.2179458541	0.3759164134
34	$-22175\,x^2 + 94270\,x - 53999$	$[1, 2, -1, 1]$	$-x$	0.4532285509	0.6270173329
35	$31824\,x^2 + 116445\,x - 94270$	$[0, 1, 1, 1]$	$-x^2$	0.3219571494	0.5570146016
36	$126094\,x^2 + 84621\,x - 116445$	$[1, 2, 0, 1]$	$-x^2$	0.1757645812	0.4048172994
37	$-84621\,x^2 + 242539\,x - 126094$	$[1, 2, -1, 1]$	$-x$	0.4437095271	0.6176507912
38	$41473\,x^2 + 327160\,x - 242539$	$[0, 1, 1, 1]$	$-x^2$	0.3758738605	0.5884924698
39	$284012\,x^2 + 285687\,x - 327160$	$[1, 2, 0, 1]$	$-x^2$	0.1749960563	0.4403176121
40	$-285687\,x^2 + 611172\,x - 284012$	$[1, 2, -1, 1]$	$-x$	0.4167041539	0.5977404284

Period $[1, 2, -1, 1], [0, 1, 1, 1], [1, 2, 0, 1]$, norm L_∞

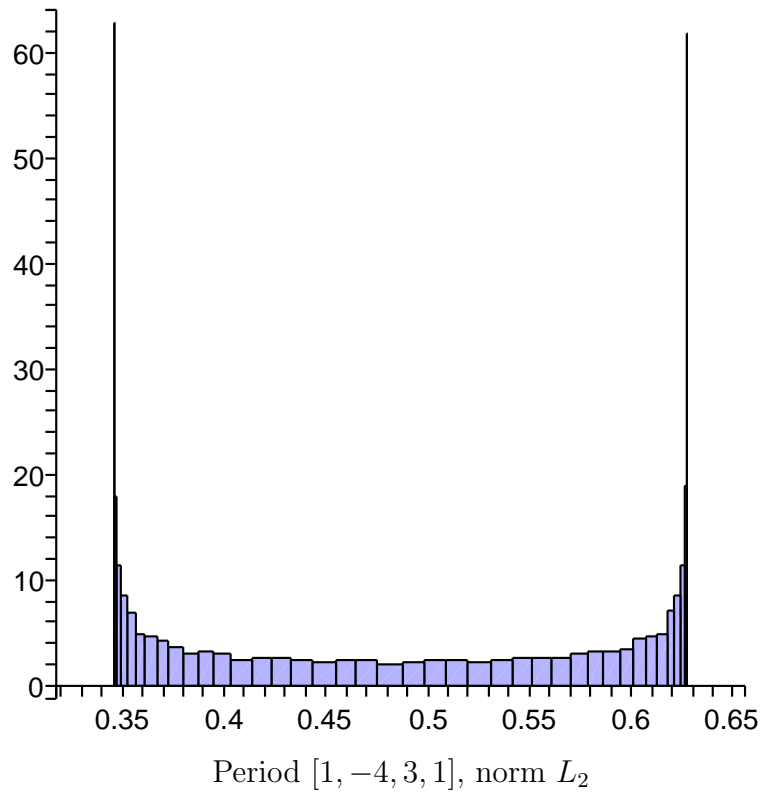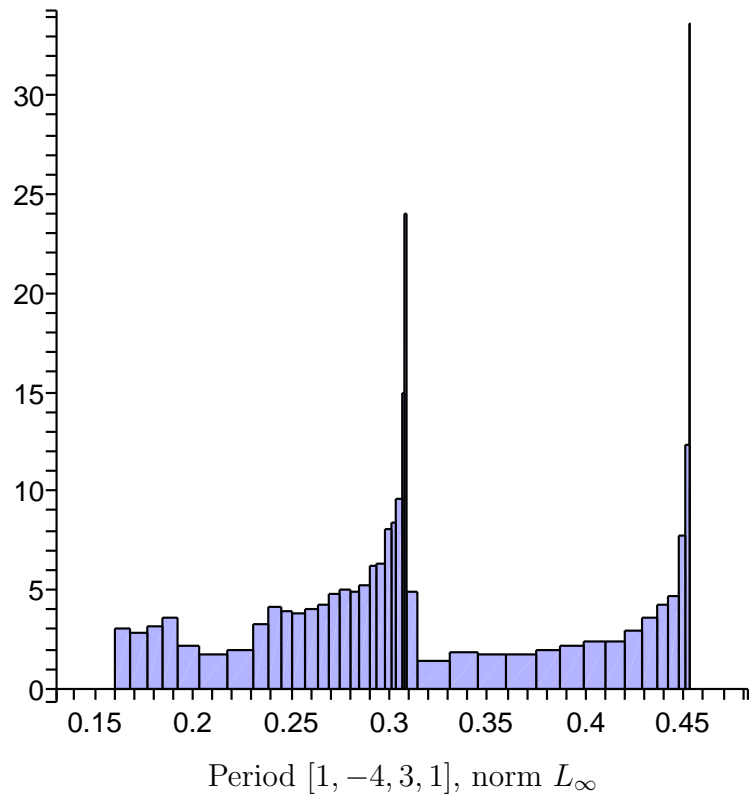Period $[1, 2, -1, 1], [0, 1, 1, 1], [1, 2, 0, 1]$, norm L_2

Number: $\xi = 0.6823...$ Equation: $x^3 + x - 1 = 0$. Period $[1, -4, 3, 1]$ with initial polynomials $x^2, x^2 + x - 1, 3x - 2$. Period $-x + 1$ with initial polynomial x^2.

1	$-3\,x^2 + 5\,x - 2$	$[1, -4, 3, 1]$	$-x + 1$	0.3731330877	0.5671622934
2	$-8\,x^2 + 4\,x + 1$	$[1, -4, 3, 1]$	$-x + 1$	0.3034470591	0.3840501841
3	$-12\,x^2 - 5\,x + 9$	$[1, -4, 3, 1]$	$-x + 1$	0.2168925608	0.3765495847
4	$-7\,x^2 - 26\,x + 21$	$[1, -4, 3, 1]$	$-x + 1$	0.3234506779	0.5579045716
5	$19\,x^2 - 54\,x + 28$	$[1, -4, 3, 1]$	$-x + 1$	0.4432289252	0.6172677179
6	$73\,x^2 - 63\,x + 9$	$[1, -4, 3, 1]$	$-x + 1$	0.2573152352	0.4528728826
7	$136\,x^2 + x - 64$	$[1, -4, 3, 1]$	$-x + 1$	0.2837114104	0.3465555740
8	$135\,x^2 + 201\,x - 200$	$[1, -4, 3, 1]$	$-x + 1$	0.1968658138	0.4805843357
9	$-66\,x^2 + 536\,x - 335$	$[1, -4, 3, 1]$	$-x + 1$	0.4447203229	0.6251820765
10	$-602\,x^2 + 805\,x - 269$	$[1, -4, 3, 1]$	$-x + 1$	0.3186605953	0.5324524610
11	$-1407\,x^2 + 472\,x + 333$	$[1, -4, 3, 1]$	$-x + 1$	0.3092459373	0.3613698338
12	$-1879\,x^2 - 1268\,x + 1740$	$[1, -4, 3, 1]$	$-x + 1$	0.1752058382	0.4052358376
13	$-611\,x^2 - 4887\,x + 3619$	$[1, -4, 3, 1]$	$-x + 1$	0.3764947259	0.5888472144
14	$4276\,x^2 - 9117\,x + 4230$	$[1, -4, 3, 1]$	$-x + 1$	0.4162529591	0.5974232103
15	$13393\,x^2 - 9071\,x - 46$	$[1, -4, 3, 1]$	$-x + 1$	0.2853568928	0.4162612588
16	$22464\,x^2 + 4368\,x - 13439$	$[1, -4, 3, 1]$	$-x + 1$	0.2550269142	0.3559428538
17	$18096\,x^2 + 40271\,x - 35903$	$[1, -4, 3, 1]$	$-x + 1$	0.2603609627	0.5198770178
18	$-22175\,x^2 + 94270\,x - 53999$	$[1, -4, 3, 1]$	$-x + 1$	0.4532285509	0.6270173329
19	$-116445\,x^2 + 126094\,x - 31824$	$[1, -4, 3, 1]$	$-x + 1$	0.2575955137	0.4936839544
20	$-242539\,x^2 + 41473\,x + 84621$	$[1, -4, 3, 1]$	$-x + 1$	0.3027553471	0.3484617454
21	$-284012\,x^2 - 285687\,x + 327160$	$[1, -4, 3, 1]$	$-x + 1$	0.1749960563	0.4403176121
22	$1675\,x^2 - 896859\,x + 611172$	$[1, -4, 3, 1]$	$-x + 1$	0.4177682291	0.6117751526
23	$898534\,x^2 - 1506356\,x + 609497$	$[1, -4, 3, 1]$	$-x + 1$	0.3743876521	0.5688899784
24	$2404890\,x^2 - 1217319\,x - 289037$	$[1, -4, 3, 1]$	$-x + 1$	0.3031348805	0.3851838271
25	$3622209\,x^2 + 1476608\,x - 2693927$	$[1, -4, 3, 1]$	$-x + 1$	0.2184598821	0.3755999327
26	$2145601\,x^2 + 7792744\,x - 6316136$	$[1, -4, 3, 1]$	$-x + 1$	0.3212067836	0.5565687886
27	$-5647143\,x^2 + 16254481\,x - 8461737$	$[1, -4, 3, 1]$	$-x + 1$	0.4439451436	0.6178399413
28	$-21901624\,x^2 + 19069075\,x - 2814594$	$[1, -4, 3, 1]$	$-x + 1$	0.2560441976	0.4543709911
29	$-40970699\,x^2 - 17955\,x + 19087030$	$[1, -4, 3, 1]$	$-x + 1$	0.2846349680	0.3464108000
30	$-40952744\,x^2 - 60075684\,x + 60057729$	$[1, -4, 3, 1]$	$-x + 1$	0.1944098029	0.4790447964
31	$19122940\,x^2 - 161086157\,x + 101010473$	$[1, -4, 3, 1]$	$-x + 1$	0.4440341359	0.6248871282
32	$180209097\,x^2 - 242973690\,x + 81887533$	$[1, -4, 3, 1]$	$-x + 1$	0.3209206189	0.5339077593
33	$423182787\,x^2 - 144652126\,x - 98321564$	$[1, -4, 3, 1]$	$-x + 1$	0.3092532816	0.3620804362
34	$567834913\,x^2 + 376852225\,x - 521504351$	$[1, -4, 3, 1]$	$-x + 1$	0.1768812163	0.4039834974
35	$190982688\,x^2 + 1466191489\,x - 1089339264$	$[1, -4, 3, 1]$	$-x + 1$	0.3746261828	0.5877789260
36	$-1275208801\,x^2 + 2746513441\,x - 1280321952$	$[1, -4, 3, 1]$	$-x + 1$	0.4175989536	0.5983704322
37	$-4021722242\,x^2 + 2751626592\,x - 5113151$	$[1, -4, 3, 1]$	$-x + 1$	0.2844456495	0.4176000872
38	$-6773348834\,x^2 - 1264982499\,x + 4016609091$	$[1, -4, 3, 1]$	$-x + 1$	0.2563074564	0.3553780202
39	$-5508366335\,x^2 - 12054940424\,x + 10789957925$	$[1, -4, 3, 1]$	$-x + 1$	0.2579073372	0.5183768650
40	$6546574089\,x^2 - 28353264684\,x + 16298324260$	$[1, -4, 3, 1]$	$-x + 1$	0.4532302730	0.6271537017

Period $[1, -4, 3, 1]$, norm L_∞
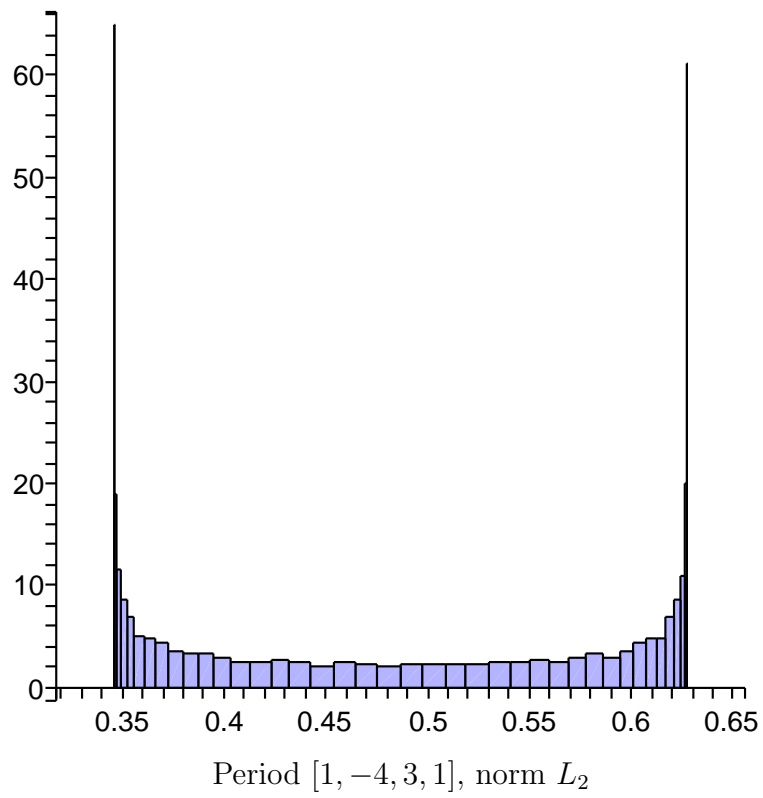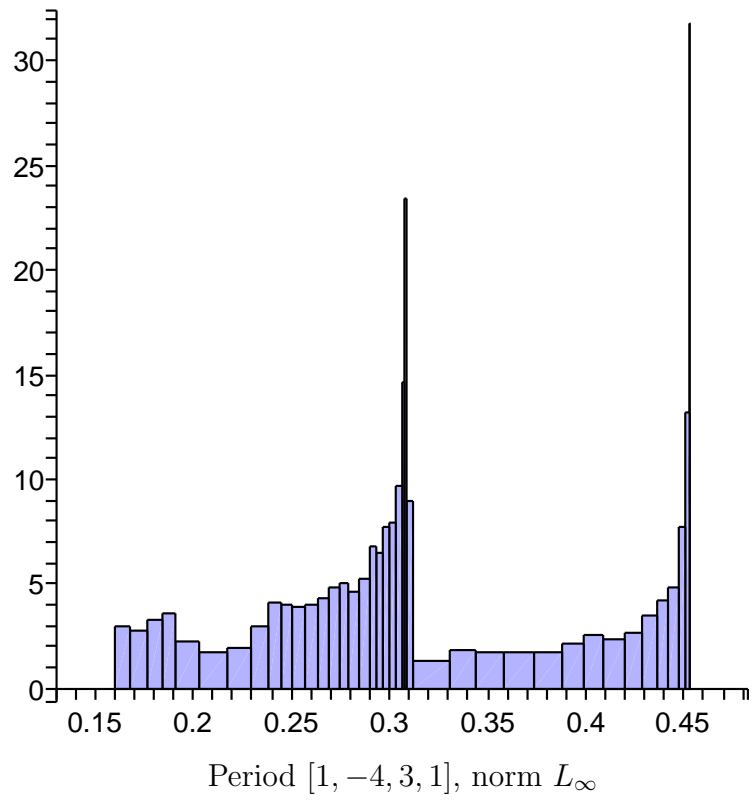

Period $[1, -4, 3, 1]$, norm L_2

9

Number: $\xi = 0.6823...$ Equation: $x^3 + x - 1 = 0$. Period $[1, -4, 3, 1]$ with initial polynomials $x, -x^2 + x, -2x^2 + 1$. Period $-x + 1$ with initial polynomial x.

1	$-2x^2 - 3x + 3$	$[1, -4, 3, 1]$	$-x + 1$	0.1968671229	0.4812307448
2	$x^2 - 8x + 5$	$[1, -4, 3, 1]$	$-x + 1$	0.4447232802	0.6253921127
3	$9x^2 - 12x + 4$	$[1, -4, 3, 1]$	$-x + 1$	0.3178714975	0.5319932701
4	$21x^2 - 7x - 5$	$[1, -4, 3, 1]$	$-x + 1$	0.3092479937	0.3611399472
5	$28x^2 + 19x - 26$	$[1, -4, 3, 1]$	$-x + 1$	0.1746479810	0.4056555783
6	$9x^2 + 73x - 54$	$[1, -4, 3, 1]$	$-x + 1$	0.3771138063	0.5892005162
7	$-64x^2 + 136x - 63$	$[1, -4, 3, 1]$	$-x + 1$	0.4157992813	0.5971044934
8	$-200x^2 + 135x + 1$	$[1, -4, 3, 1]$	$-x + 1$	0.2856571602	0.4158168452
9	$-335x^2 - 66x + 201$	$[1, -4, 3, 1]$	$-x + 1$	0.2545973873	0.3561346140
10	$-269x^2 - 602x + 536$	$[1, -4, 3, 1]$	$-x + 1$	0.2611779546	0.5203761965
11	$333x^2 - 1407x + 805$	$[1, -4, 3, 1]$	$-x + 1$	0.4532219492	0.6269681448
12	$1740x^2 - 1879x + 472$	$[1, -4, 3, 1]$	$-x + 1$	0.2567766361	0.4931707270
13	$3619x^2 - 611x - 1268$	$[1, -4, 3, 1]$	$-x + 1$	0.3025926094	0.3483643484
14	$4230x^2 + 4276x - 4887$	$[1, -4, 3, 1]$	$-x + 1$	0.1752851134	0.4408030216
15	$-46x^2 + 13393x - 9117$	$[1, -4, 3, 1]$	$-x + 1$	0.4182108529	0.6120111893
16	$-13439x^2 + 22464x - 9071$	$[1, -4, 3, 1]$	$-x + 1$	0.3737601089	0.5684719843
17	$-35903x^2 + 18096x + 4368$	$[1, -4, 3, 1]$	$-x + 1$	0.3032909492	0.3848284054
18	$-53999x^2 - 22175x + 40271$	$[1, -4, 3, 1]$	$-x + 1$	0.2179458541	0.3759164134
19	$-31824x^2 - 116445x + 94270$	$[1, -4, 3, 1]$	$-x + 1$	0.3219571494	0.5570146016
20	$84621x^2 - 242539x + 126094$	$[1, -4, 3, 1]$	$-x + 1$	0.4437095271	0.6176507912
21	$327160x^2 - 284012x + 41473$	$[1, -4, 3, 1]$	$-x + 1$	0.2564691858	0.4538711541
22	$611172x^2 + 1675x - 285687$	$[1, -4, 3, 1]$	$-x + 1$	0.2843288302	0.3464571896
23	$609497x^2 + 898534x - 896859$	$[1, -4, 3, 1]$	$-x + 1$	0.1952280585	0.4795578830
24	$-289037x^2 + 2404890x - 1506356$	$[1, -4, 3, 1]$	$-x + 1$	0.4442657602	0.6249872833
25	$-2693927x^2 + 3622209x - 1217319$	$[1, -4, 3, 1]$	$-x + 1$	0.3201685185	0.5334232785
26	$-6316136x^2 + 2145601x + 1476608$	$[1, -4, 3, 1]$	$-x + 1$	0.3092528899	0.3618419065
27	$-8461737x^2 - 5647143x + 7792744$	$[1, -4, 3, 1]$	$-x + 1$	0.1763230430	0.4043998508
28	$-2814594x^2 - 21901624x + 16254481$	$[1, -4, 3, 1]$	$-x + 1$	0.3752510100	0.5881363721
29	$19087030x^2 - 40970699x + 19069075$	$[1, -4, 3, 1]$	$-x + 1$	0.4171528208	0.5980561705
30	$60057729x^2 - 40952744x - 17955$	$[1, -4, 3, 1]$	$-x + 1$	0.2847511292	0.4171528835
31	$101010473x^2 + 19122940x - 60075684$	$[1, -4, 3, 1]$	$-x + 1$	0.2558819538	0.3555645542
32	$81887533x^2 + 180209097x - 161086157$	$[1, -4, 3, 1]$	$-x + 1$	0.2587256430	0.5188773454
33	$-98321564x^2 + 423182787x - 242973690$	$[1, -4, 3, 1]$	$-x + 1$	0.4532327128	0.6271101119
34	$-521504351x^2 + 567834913x - 144652126$	$[1, -4, 3, 1]$	$-x + 1$	0.2592320221	0.4947101258
35	$-1089339264x^2 + 190982688x + 376852225$	$[1, -4, 3, 1]$	$-x + 1$	0.3030749104	0.3486620553
36	$-1280321952x^2 - 1275208801x + 1466191489$	$[1, -4, 3, 1]$	$-x + 1$	0.1744151734	0.4393486520
37	$-5113151x^2 - 4021722242x + 2746513441$	$[1, -4, 3, 1]$	$-x + 1$	0.4168753609	0.6112980940
38	$4016609091x^2 - 6773348834x + 2751626592$	$[1, -4, 3, 1]$	$-x + 1$	0.3756368346	0.5697226838
39	$10789957925x^2 - 5508366335x - 1264982499$	$[1, -4, 3, 1]$	$-x + 1$	0.3028168200	0.3858987181
40	$16298324260x^2 + 6546574089x - 12054940424$	$[1, -4, 3, 1]$	$-x + 1$	0.2194853843	0.3749714103

Period $[1, -4, 3, 1]$, norm L_∞

Period $[1, -4, 3, 1]$, norm L_2

Number: $\xi = 0.6823...$ Equation: $x^3 + x - 1 = 0$. Period $[1, -4, 3, 1]$ with initial polynomials $1, -x + 1, x^2 - 2x + 1$. Period $-x + 1$ with initial polynomial 1.
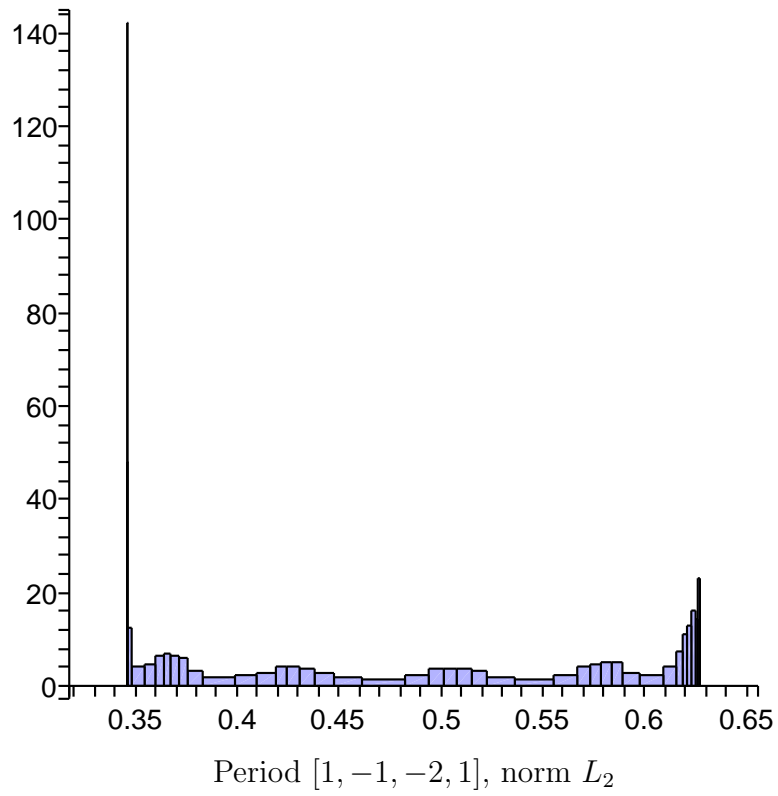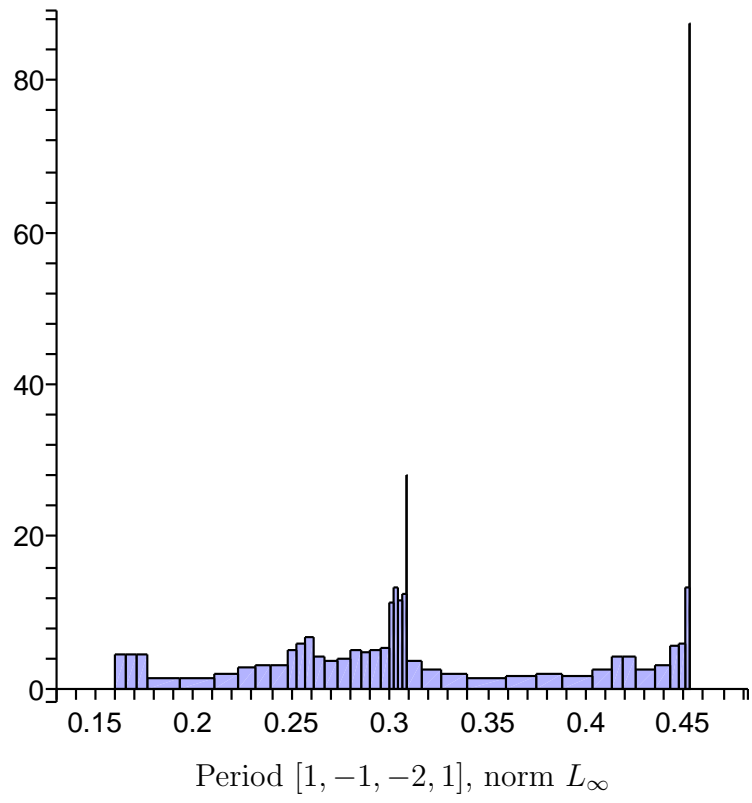
1	$3\,x^2 - 2\,x$	$[1, -4, 3, 1]$	$-x + 1$	0.2885227918	0.4167551437
2	$5\,x^2 + x - 3$	$[1, -4, 3, 1]$	$-x + 1$	0.2545990803	0.3564387124
3	$4\,x^2 + 9\,x - 8$	$[1, -4, 3, 1]$	$-x + 1$	0.2620481187	0.5208610754
4	$-5\,x^2 + 21\,x - 12$	$[1, -4, 3, 1]$	$-x + 1$	0.4532249630	0.6269098128
5	$-26\,x^2 + 28\,x - 7$	$[1, -4, 3, 1]$	$-x + 1$	0.2559590566	0.4926558884
6	$-54\,x^2 + 9\,x + 19$	$[1, -4, 3, 1]$	$-x + 1$	0.3024274191	0.3482686123
7	$-63\,x^2 - 64\,x + 73$	$[1, -4, 3, 1]$	$-x + 1$	0.1755733393	0.4412890424
8	$x^2 - 200\,x + 136$	$[1, -4, 3, 1]$	$-x + 1$	0.4186509161	0.6122455660
9	$201\,x^2 - 335\,x + 135$	$[1, -4, 3, 1]$	$-x + 1$	0.3731306065	0.5680529049
10	$536\,x^2 - 269\,x - 66$	$[1, -4, 3, 1]$	$-x + 1$	0.3034450412	0.3844743394
11	$805\,x^2 + 333\,x - 602$	$[1, -4, 3, 1]$	$-x + 1$	0.2174309842	0.3762343680
12	$472\,x^2 + 1740\,x - 1407$	$[1, -4, 3, 1]$	$-x + 1$	0.3227062472	0.5574594802
13	$-1268\,x^2 + 3619\,x - 1879$	$[1, -4, 3, 1]$	$-x + 1$	0.4434710233	0.6174599002
14	$-4887\,x^2 + 4230\,x - 611$	$[1, -4, 3, 1]$	$-x + 1$	0.2568928195	0.4533717544
15	$-9117\,x^2 - 46\,x + 4276$	$[1, -4, 3, 1]$	$-x + 1$	0.2840209674	0.3465054450
16	$-9071\,x^2 - 13439\,x + 13393$	$[1, -4, 3, 1]$	$-x + 1$	0.1960467315	0.4800710651
17	$4368\,x^2 - 35903\,x + 22464$	$[1, -4, 3, 1]$	$-x + 1$	0.4444944900	0.6250856000
18	$40271\,x^2 - 53999\,x + 18096$	$[1, -4, 3, 1]$	$-x + 1$	0.3194151739	0.5329381769
19	$94270\,x^2 - 31824\,x - 22175$	$[1, -4, 3, 1]$	$-x + 1$	0.3092504418	0.3616050380
20	$126094\,x^2 + 84621\,x - 116445$	$[1, -4, 3, 1]$	$-x + 1$	0.1757645812	0.4048172994
21	$41473\,x^2 + 327160\,x - 242539$	$[1, -4, 3, 1]$	$-x + 1$	0.3758738605	0.5884924698
22	$-285687\,x^2 + 611172\,x - 284012$	$[1, -4, 3, 1]$	$-x + 1$	0.4167041539	0.5977404284
23	$-896859\,x^2 + 609497\,x + 1675$	$[1, -4, 3, 1]$	$-x + 1$	0.2850548783	0.4167066054
24	$-1506356\,x^2 - 289037\,x + 898534$	$[1, -4, 3, 1]$	$-x + 1$	0.2554551045	0.3557528329
25	$-1217319\,x^2 - 2693927\,x + 2404890$	$[1, -4, 3, 1]$	$-x + 1$	0.2595435218	0.5193773986
26	$1476608\,x^2 - 6316136\,x + 3622209$	$[1, -4, 3, 1]$	$-x + 1$	0.4532321388	0.6270646554
27	$7792744\,x^2 - 8461737\,x + 2145601$	$[1, -4, 3, 1]$	$-x + 1$	0.2584139794	0.4941970896
28	$16254481\,x^2 - 2814594\,x - 5647143$	$[1, -4, 3, 1]$	$-x + 1$	0.3029161149	0.3485609814
29	$19069075\,x^2 + 19087030\,x - 21901624$	$[1, -4, 3, 1]$	$-x + 1$	0.1747060750	0.4398328201
30	$-17955\,x^2 + 60057729\,x - 40970699$	$[1, -4, 3, 1]$	$-x + 1$	0.4173230631	0.6115374531
31	$-60075684\,x^2 + 101010473\,x - 40952744$	$[1, -4, 3, 1]$	$-x + 1$	0.3750132302	0.5693068801
32	$-161086157\,x^2 + 81887533\,x + 19122940$	$[1, -4, 3, 1]$	$-x + 1$	0.3029768368	0.3855405996
33	$-242973690\,x^2 - 98321564\,x + 180209097$	$[1, -4, 3, 1]$	$-x + 1$	0.2189730611	0.3752849303
34	$-144652126\,x^2 - 521504351\,x + 423182787$	$[1, -4, 3, 1]$	$-x + 1$	0.3204551598	0.5561220469
35	$376852225\,x^2 - 1089339264\,x + 567834913$	$[1, -4, 3, 1]$	$-x + 1$	0.4441778698	0.6180273480
36	$1466191489\,x^2 - 1280321952\,x + 190982688$	$[1, -4, 3, 1]$	$-x + 1$	0.2556178606	0.4548712588
37	$2746513441\,x^2 - 5113151\,x - 1275208801$	$[1, -4, 3, 1]$	$-x + 1$	0.2849393769	0.3463662768
38	$2751626592\,x^2 + 4016609091\,x - 4021722242$	$[1, -4, 3, 1]$	$-x + 1$	0.1940851753	0.4785318123
39	$-1264982499\,x^2 + 10789957925\,x - 6773348834$	$[1, -4, 3, 1]$	$-x + 1$	0.4437996200	0.6247851359
40	$-12054940424\,x^2 + 16298324260\,x - 5508366335$	$[1, -4, 3, 1]$	$-x + 1$	0.3216714651	0.5343916129

Period $[1, -4, 3, 1]$, norm L_∞

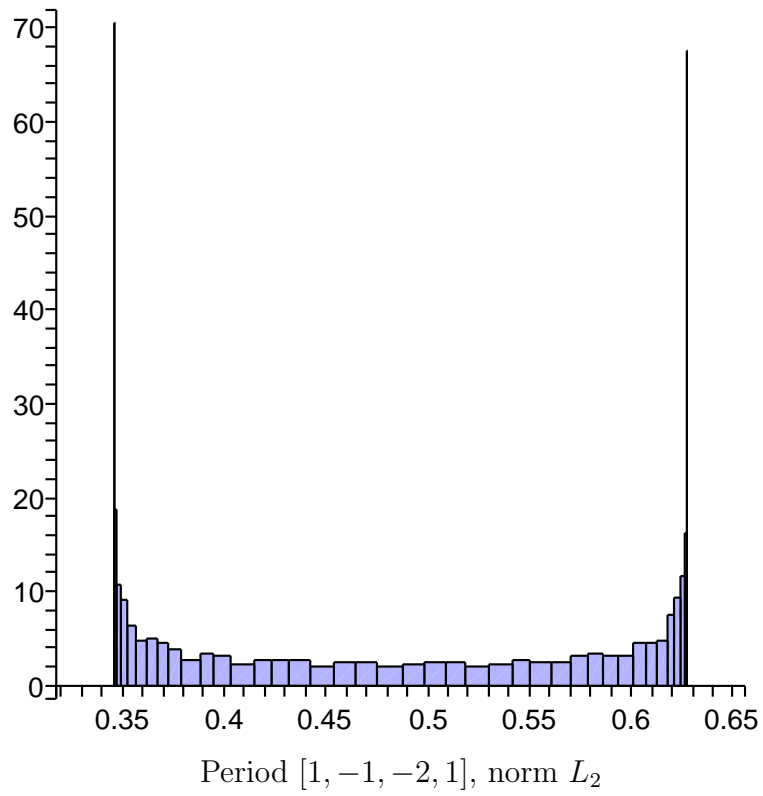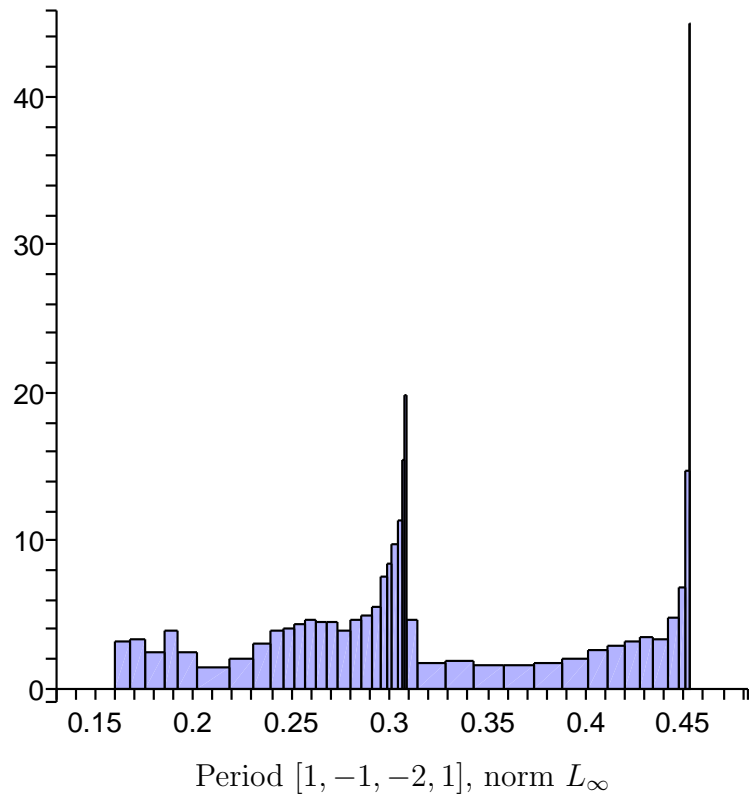Period $[1, -4, 3, 1]$, norm L_2

13

Number: $\xi = 0.6823...$ Equation: $x^3 + x - 1 = 0$. Period $[1, -1, -2, 1]$ with initial polynomials $x, -x + 1, x^2 + x - 1$. Period x^2 with initial polynomial x.

1	$-2\,x^2 + 1$	$[1, -1, -2, 1]$	x^2	0.2754301450	0.3442876812
2	$3\,x^2 - 2\,x$	$[1, -1, -2, 1]$	x^2	0.2885227918	0.4167551437
3	$-3\,x^2 + 5\,x - 2$	$[1, -1, -2, 1]$	x^2	0.3731330877	0.5671622934
4	$x^2 - 8\,x + 5$	$[1, -1, -2, 1]$	x^2	0.4447232802	0.6253921127
5	$4\,x^2 + 9\,x - 8$	$[1, -1, -2, 1]$	x^2	0.2620481187	0.5208610754
6	$-12\,x^2 - 5\,x + 9$	$[1, -1, -2, 1]$	x^2	0.2168925608	0.3765495847
7	$21\,x^2 - 7\,x - 5$	$[1, -1, -2, 1]$	x^2	0.3092479937	0.3611399472
8	$-26\,x^2 + 28\,x - 7$	$[1, -1, -2, 1]$	x^2	0.2559590566	0.4926558884
9	$19\,x^2 - 54\,x + 28$	$[1, -1, -2, 1]$	x^2	0.4432289252	0.6172677179
10	$9\,x^2 + 73\,x - 54$	$[1, -1, -2, 1]$	x^2	0.3771138063	0.5892005162
11	$-63\,x^2 - 64\,x + 73$	$[1, -1, -2, 1]$	x^2	0.1755733393	0.4412890424
12	$136\,x^2 + x - 64$	$[1, -1, -2, 1]$	x^2	0.2837114104	0.3465555740
13	$-200\,x^2 + 135\,x + 1$	$[1, -1, -2, 1]$	x^2	0.2856571602	0.4158168452
14	$201\,x^2 - 335\,x + 135$	$[1, -1, -2, 1]$	x^2	0.3731306065	0.5680529049
15	$-66\,x^2 + 536\,x - 335$	$[1, -1, -2, 1]$	x^2	0.4447203229	0.6251820765
16	$-269\,x^2 - 602\,x + 536$	$[1, -1, -2, 1]$	x^2	0.2611779546	0.5203761965
17	$805\,x^2 + 333\,x - 602$	$[1, -1, -2, 1]$	x^2	0.2174309842	0.3762343680
18	$-1407\,x^2 + 472\,x + 333$	$[1, -1, -2, 1]$	x^2	0.3092459373	0.3613698338
19	$1740\,x^2 - 1879\,x + 472$	$[1, -1, -2, 1]$	x^2	0.2567766361	0.4931707270
20	$-1268\,x^2 + 3619\,x - 1879$	$[1, -1, -2, 1]$	x^2	0.4434710233	0.6174599002
21	$-611\,x^2 - 4887\,x + 3619$	$[1, -1, -2, 1]$	x^2	0.3764947259	0.5888472144
22	$4230\,x^2 + 4276\,x - 4887$	$[1, -1, -2, 1]$	x^2	0.1752851134	0.4408030216
23	$-9117\,x^2 - 46\,x + 4276$	$[1, -1, -2, 1]$	x^2	0.2840209674	0.3465054450
24	$13393\,x^2 - 9071\,x - 46$	$[1, -1, -2, 1]$	x^2	0.2853568928	0.4162612588
25	$-13439\,x^2 + 22464\,x - 9071$	$[1, -1, -2, 1]$	x^2	0.3737601089	0.5684719843
26	$4368\,x^2 - 35903\,x + 22464$	$[1, -1, -2, 1]$	x^2	0.4444944900	0.6250856000
27	$18096\,x^2 + 40271\,x - 35903$	$[1, -1, -2, 1]$	x^2	0.2603609627	0.5198770178
28	$-53999\,x^2 - 22175\,x + 40271$	$[1, -1, -2, 1]$	x^2	0.2179458541	0.3759164134
29	$94270\,x^2 - 31824\,x - 22175$	$[1, -1, -2, 1]$	x^2	0.3092504418	0.3616050380
30	$-116445\,x^2 + 126094\,x - 31824$	$[1, -1, -2, 1]$	x^2	0.2575955137	0.4936839544
31	$84621\,x^2 - 242539\,x + 126094$	$[1, -1, -2, 1]$	x^2	0.4437095271	0.6176507912
32	$41473\,x^2 + 327160\,x - 242539$	$[1, -1, -2, 1]$	x^2	0.3758738605	0.5884924698
33	$-284012\,x^2 - 285687\,x + 327160$	$[1, -1, -2, 1]$	x^2	0.1749960563	0.4403176121
34	$611172\,x^2 + 1675\,x - 285687$	$[1, -1, -2, 1]$	x^2	0.2843288302	0.3464571896
35	$-896859\,x^2 + 609497\,x + 1675$	$[1, -1, -2, 1]$	x^2	0.2850548783	0.4167066054
36	$898534\,x^2 - 1506356\,x + 609497$	$[1, -1, -2, 1]$	x^2	0.3743876521	0.5688899784
37	$-289037\,x^2 + 2404890\,x - 1506356$	$[1, -1, -2, 1]$	x^2	0.4442657602	0.6249872833
38	$-1217319\,x^2 - 2693927\,x + 2404890$	$[1, -1, -2, 1]$	x^2	0.2595435218	0.5193773986
39	$3622209\,x^2 + 1476608\,x - 2693927$	$[1, -1, -2, 1]$	x^2	0.2184598821	0.3755999327
40	$-6316136\,x^2 + 2145601\,x + 1476608$	$[1, -1, -2, 1]$	x^2	0.3092528899	0.3618419065

41	$7792744\,x^2 - 8461737\,x + 2145601$	$[1, -1, -2, 1]$	x^2	0.2584139794	0.4941970896
42	$-5647143\,x^2 + 16254481\,x - 8461737$	$[1, -1, -2, 1]$	x^2	0.4439451436	0.6178399413
43	$-2814594\,x^2 - 21901624\,x + 16254481$	$[1, -1, -2, 1]$	x^2	0.3752510100	0.5881363721
44	$19069075\,x^2 + 19087030\,x - 21901624$	$[1, -1, -2, 1]$	x^2	0.1747060750	0.4398328201
45	$-40970699\,x^2 - 17955\,x + 19087030$	$[1, -1, -2, 1]$	x^2	0.2846349680	0.3464108000
46	$60057729\,x^2 - 40952744\,x - 17955$	$[1, -1, -2, 1]$	x^2	0.2847511292	0.4171528835
47	$-60075684\,x^2 + 101010473\,x - 40952744$	$[1, -1, -2, 1]$	x^2	0.3750132302	0.5693068801
48	$19122940\,x^2 - 161086157\,x + 101010473$	$[1, -1, -2, 1]$	x^2	0.4440341359	0.6248871282
49	$81887533\,x^2 + 180209097\,x - 161086157$	$[1, -1, -2, 1]$	x^2	0.2587256430	0.5188773454
50	$-242973690\,x^2 - 98321564\,x + 180209097$	$[1, -1, -2, 1]$	x^2	0.2189730611	0.3752849303
51	$423182787\,x^2 - 144652126\,x - 98321564$	$[1, -1, -2, 1]$	x^2	0.3092532816	0.3620804362
52	$-521504351\,x^2 + 567834913\,x - 144652126$	$[1, -1, -2, 1]$	x^2	0.2592320221	0.4947101258
53	$376852225\,x^2 - 1089339264\,x + 567834913$	$[1, -1, -2, 1]$	x^2	0.4441778698	0.6180273480
54	$190982688\,x^2 + 1466191489\,x - 1089339264$	$[1, -1, -2, 1]$	x^2	0.3746261828	0.5877789260
55	$-1280321952\,x^2 - 1275208801\,x + 1466191489$	$[1, -1, -2, 1]$	x^2	0.1744151734	0.4393486520
56	$2746513441\,x^2 - 5113151\,x - 1275208801$	$[1, -1, -2, 1]$	x^2	0.2849393769	0.3463662768
57	$-4021722242\,x^2 + 2751626592\,x - 5113151$	$[1, -1, -2, 1]$	x^2	0.2844456495	0.4176000872
58	$4016609091\,x^2 - 6773348834\,x + 2751626592$	$[1, -1, -2, 1]$	x^2	0.3756368346	0.5697226838
59	$-1264982499\,x^2 + 10789957925\,x - 6773348834$	$[1, -1, -2, 1]$	x^2	0.4437996200	0.6247851359
60	$-5508366335\,x^2 - 12054940424\,x + 10789957925$	$[1, -1, -2, 1]$	x^2	0.2579073372	0.5183768650
61	$16298324260\,x^2 + 6546574089\,x - 12054940424$	$[1, -1, -2, 1]$	x^2	0.2194853843	0.3749714103
62	$-28353264684\,x^2 + 9751750171\,x + 6546574089$	$[1, -1, -2, 1]$	x^2	0.3092516168	0.3623206239
63	$34899838773\,x^2 - 38105014855\,x + 9751750171$	$[1, -1, -2, 1]$	x^2	0.2600496311	0.4952230561
64	$-25148088602\,x^2 + 73004853628\,x - 38105014855$	$[1, -1, -2, 1]$	x^2	0.4444077026	0.6182130088
65	$-12956926253\,x^2 - 98152942230\,x + 73004853628$	$[1, -1, -2, 1]$	x^2	0.3739993871	0.5874201363
66	$85961779881\,x^2 + 85196015977\,x - 98152942230$	$[1, -1, -2, 1]$	x^2	0.1741233554	0.4388651144
67	$-184114722111\,x^2 + 765763904\,x + 85196015977$	$[1, -1, -2, 1]$	x^2	0.2852420526	0.3463236206
68	$269310738088\,x^2 - 184880486015\,x + 765763904$	$[1, -1, -2, 1]$	x^2	0.2841384433	0.4180482105
69	$-268544974184\,x^2 + 454191224103\,x - 184880486015$	$[1, -1, -2, 1]$	x^2	0.3762584572	0.5701373840
70	$83664488169\,x^2 - 722736198287\,x + 454191224103$	$[1, -1, -2, 1]$	x^2	0.4435622157	0.6246813078
71	$370526735934\,x^2 + 806400686456\,x - 722736198287$	$[1, -1, -2, 1]$	x^2	0.2570886152	0.5178759639
72	$-1093262934221\,x^2 - 435873950522\,x + 806400686456$	$[1, -1, -2, 1]$	x^2	0.2199968450	0.3746593769
73	$1899663620677\,x^2 - 657388983699\,x - 435873950522$	$[1, -1, -2, 1]$	x^2	0.3092478956	0.3625624664
74	$-2335537571199\,x^2 + 2557052604376\,x - 657388983699$	$[1, -1, -2, 1]$	x^2	0.2608667955	0.4957358737
75	$1678148587500\,x^2 - 4892590175575\,x + 2557052604376$	$[1, -1, -2, 1]$	x^2	0.4446346389	0.6183969212
76	$878904016876\,x^2 + 6570738763075\,x - 4892590175575$	$[1, -1, -2, 1]$	x^2	0.3733706314	0.5870600077
77	$-5771494192451\,x^2 - 5691834746199\,x + 6570738763075$	$[1, -1, -2, 1]$	x^2	0.1738306248	0.4383822136
78	$12342232955526\,x^2 - 79659446252\,x\,5691834746199$	$[1, -1, -2, 1]$	x^2	0.2855429913	0.3462828319
79	$-18034067701725\,x^2 + 12421892401778\,x - 79659446252$	$[1, -1, -2, 1]$	x^2	0.2838295146	0.4184972475
80	$17954408255473\,x^2 - 30455960103503\,x + 12421892401778$	$[1, -1, -2, 1]$	x^2	0.3768780896	0.5705509752

Period $[1, -1, -2, 1]$, norm L_∞

Period $[1, -1, -2, 1]$, norm L_2

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Period $[1, -1, -2, 1]$, norm L_∞

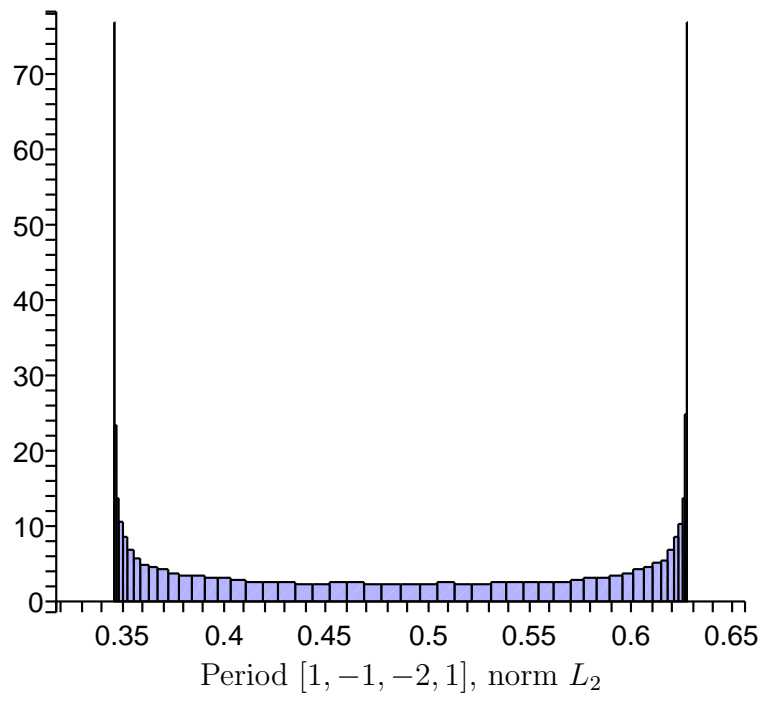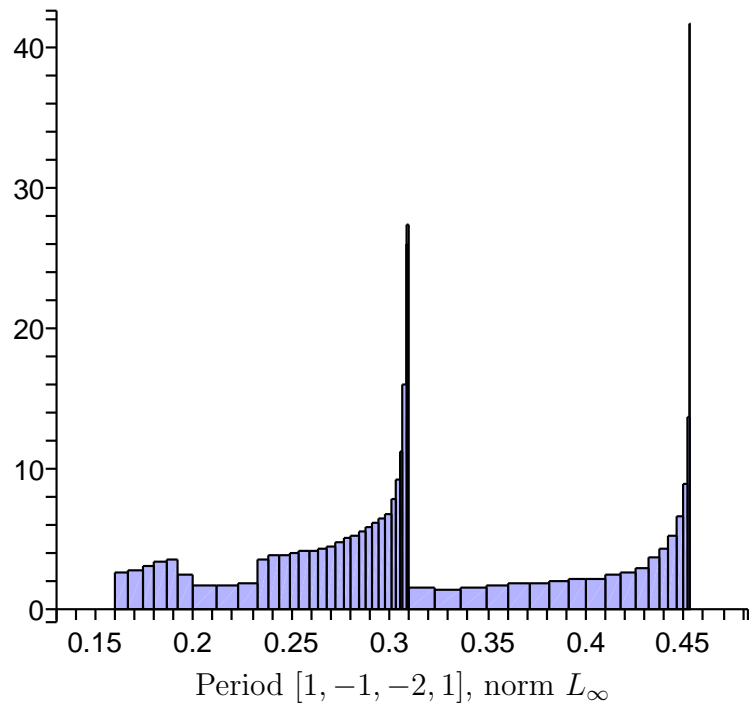Period $[1, -1, -2, 1]$, norm L_2

17

Number: $\xi = 0.6823...$ Equation: $x^3 + x - 1 = 0$. Period $[1, -1, -2, 1]$ with initial polynomials $1, x^2, -x^2 + x$. Period x^2 with initial polynomial 1.

1	$x^2 - 2x + 1$	$[1, -1, -2, 1]$	x^2	0.4036624969	0.6054937453
2	$3x - 2$	$[1, -1, -2, 1]$	x^2	0.4228507034	0.6107843493
3	$-2x^2 - 3x + 3$	$[1, -1, -2, 1]$	x^2	0.1968671229	0.4812307448
4	$5x^2 + x - 3$	$[1, -1, -2, 1]$	x^2	0.2545990803	0.3564387124
5	$-8x^2 + 4x + 1$	$[1, -1, -2, 1]$	x^2	0.3034470591	0.3840501841
6	$9x^2 - 12x + 4$	$[1, -1, -2, 1]$	x^2	0.3178714975	0.5319932701
7	$-5x^2 + 21x - 12$	$[1, -1, -2, 1]$	x^2	0.4532249630	0.6269098128
8	$-7x^2 - 26x + 21$	$[1, -1, -2, 1]$	x^2	0.3234506779	0.5579045716
9	$28x^2 + 19x - 26$	$[1, -1, -2, 1]$	x^2	0.1746479810	0.4056555783
10	$-54x^2 + 9x + 19$	$[1, -1, -2, 1]$	x^2	0.3024274191	0.3482686123
11	$73x^2 - 63x + 9$	$[1, -1, -2, 1]$	x^2	0.2573152352	0.4528728826
12	$-64x^2 + 136x - 63$	$[1, -1, -2, 1]$	x^2	0.4157992813	0.5971044934
13	$x^2 - 200x + 136$	$[1, -1, -2, 1]$	x^2	0.4186509161	0.6122455660
14	$135x^2 + 201x - 200$	$[1, -1, -2, 1]$	x^2	0.1968658138	0.4805843357
15	$-335x^2 - 66x + 201$	$[1, -1, -2, 1]$	x^2	0.2545973873	0.3561346140
16	$536x^2 - 269x - 66$	$[1, -1, -2, 1]$	x^2	0.3034450412	0.3844743394
17	$-602x^2 + 805x - 269$	$[1, -1, -2, 1]$	x^2	0.3186605953	0.5324524610
18	$333x^2 - 1407x + 805$	$[1, -1, -2, 1]$	x^2	0.4532219492	0.6269681448
19	$472x^2 + 1740x - 1407$	$[1, -1, -2, 1]$	x^2	0.3227062472	0.5574594802
20	$-1879x^2 - 1268x + 1740$	$[1, -1, -2, 1]$	x^2	0.1752058382	0.4052358376
21	$3619x^2 - 611x - 1268$	$[1, -1, -2, 1]$	x^2	0.3025926094	0.3483643484
22	$-4887x^2 + 4230x - 611$	$[1, -1, -2, 1]$	x^2	0.2568928195	0.4533717544
23	$4276x^2 - 9117x + 4230$	$[1, -1, -2, 1]$	x^2	0.4162529591	0.5974232103
24	$-46x^2 + 13393x - 9117$	$[1, -1, -2, 1]$	x^2	0.4182108529	0.6120111893
25	$-9071x^2 - 13439x + 13393$	$[1, -1, -2, 1]$	x^2	0.1960467315	0.4800710651
26	$22464x^2 + 4368x - 13439$	$[1, -1, -2, 1]$	x^2	0.2550269142	0.3559428538
27	$-35903x^2 + 18096x + 4368$	$[1, -1, -2, 1]$	x^2	0.3032909492	0.3848284054
28	$40271x^2 - 53999x + 18096$	$[1, -1, -2, 1]$	x^2	0.3194151739	0.5329381769
29	$-22175x^2 + 94270x - 53999$	$[1, -1, -2, 1]$	x^2	0.4532285509	0.6270173329
30	$-31824x^2 - 116445x + 94270$	$[1, -1, -2, 1]$	x^2	0.3219571494	0.5570146016
31	$126094x^2 + 84621x - 116445$	$[1, -1, -2, 1]$	x^2	0.1757645812	0.4048172994
32	$-242539x^2 + 41473x + 84621$	$[1, -1, -2, 1]$	x^2	0.3027553471	0.3484617454
33	$327160x^2 - 284012x + 41473$	$[1, -1, -2, 1]$	x^2	0.2564691858	0.4538711541
34	$-285687x^2 + 611172x - 284012$	$[1, -1, -2, 1]$	x^2	0.4167041539	0.5977404284
35	$1675x^2 - 896859x + 611172$	$[1, -1, -2, 1]$	x^2	0.4177682291	0.6117751526
36	$609497x^2 + 898534x - 896859$	$[1, -1, -2, 1]$	x^2	0.1952280585	0.4795578830
37	$-1506356x^2 - 289037x + 898534$	$[1, -1, -2, 1]$	x^2	0.2554551045	0.3557528329
38	$2404890x^2 - 1217319x - 289037$	$[1, -1, -2, 1]$	x^2	0.3031348805	0.3851838271
39	$-2693927x^2 + 3622209x - 1217319$	$[1, -1, -2, 1]$	x^2	0.3201685185	0.5334232785
40	$1476608x^2 - 6316136x + 3622209$	$[1, -1, -2, 1]$	x^2	0.4532321388	0.6270646554

41	$2145601\,x^2 + 7792744\,x - 6316136$	$[1, -1, -2, 1]$	x^2	0.3212067836	0.5565687886
42	$-8461737\,x^2 - 5647143\,x + 7792744$	$[1, -1, -2, 1]$	x^2	0.1763230430	0.4043998508
43	$16254481\,x^2 - 2814594\,x - 5647143$	$[1, -1, -2, 1]$	x^2	0.3029161149	0.3485609814
44	$-21901624\,x^2 + 19069075\,x - 2814594$	$[1, -1, -2, 1]$	x^2	0.2560441976	0.4543709911
45	$19087030\,x^2 - 40970699\,x + 19069075$	$[1, -1, -2, 1]$	x^2	0.4171528208	0.5980561705
46	$-17955\,x^2 + 60057729\,x - 40970699$	$[1, -1, -2, 1]$	x^2	0.4173230631	0.6115374531
47	$-40952744\,x^2 - 60075684\,x + 60057729$	$[1, -1, -2, 1]$	x^2	0.1944098029	0.4790447964
48	$101010473\,x^2 + 19122940\,x - 60075684$	$[1, -1, -2, 1]$	x^2	0.2558819538	0.3555645542
49	$-161086157\,x^2 + 81887533\,x + 19122940$	$[1, -1, -2, 1]$	x^2	0.3029768368	0.3855405996
50	$180209097\,x^2 - 242973690\,x + 81887533$	$[1, -1, -2, 1]$	x^2	0.3209206189	0.5339077593
51	$-98321564\,x^2 + 423182787\,x - 242973690$	$[1, -1, -2, 1]$	x^2	0.4532327128	0.6271101119
52	$-144652126\,x^2 - 521504351\,x + 423182787$	$[1, -1, -2, 1]$	x^2	0.3204551598	0.5561220469
53	$567834913\,x^2 + 376852225\,x - 521504351$	$[1, -1, -2, 1]$	x^2	0.1768812163	0.4039834974
54	$-1089339264\,x^2 + 190982688\,x + 376852225$	$[1, -1, -2, 1]$	x^2	0.3030749104	0.3486620553
55	$1466191489\,x^2 - 1280321952\,x + 190982688$	$[1, -1, -2, 1]$	x^2	0.2556178606	0.4548712588
56	$-1275208801\,x^2 + 2746513441\,x - 1280321952$	$[1, -1, -2, 1]$	x^2	0.4175989536	0.5983704322
57	$-5113151\,x^2 - 4021722242\,x + 2746513441$	$[1, -1, -2, 1]$	x^2	0.4168753609	0.6112980940
58	$2751626592\,x^2 + 4016609091\,x - 4021722242$	$[1, -1, -2, 1]$	x^2	0.1940851753	0.4785318123
59	$-6773348834\,x^2 - 1264982499\,x + 4016609091$	$[1, -1, -2, 1]$	x^2	0.2563074564	0.3553780202
60	$10789957925\,x^2 - 5508366335\,x - 1264982499$	$[1, -1, -2, 1]$	x^2	0.3028168200	0.3858987181
61	$-12054940424\,x^2 + 16298324260\,x - 5508366335$	$[1, -1, -2, 1]$	x^2	0.3216714651	0.5343916129
62	$6546574089\,x^2 - 28353264684\,x + 16298324260$	$[1, -1, -2, 1]$	x^2	0.4532302730	0.6271537017
63	$9751750171\,x^2 + 34899838773\,x - 28353264684$	$[1, -1, -2, 1]$	x^2	0.3197022880	0.5556743827
64	$-38105014855\,x^2 - 25148088602\,x + 34899838773$	$[1, -1, -2, 1]$	x^2	0.1774390937	0.4035682448
65	$73004853628\,x^2 - 12956926253\,x - 25148088602$	$[1, -1, -2, 1]$	x^2	0.3032317317	0.3487649657
66	$-98152942230\,x^2 + 85961779881\,x - 12956926253$	$[1, -1, -2, 1]$	x^2	0.2551901805	0.4553719504
67	$85196015977\,x^2 - 184114722111\,x + 85961779881$	$[1, -1, -2, 1]$	x^2	0.4180425464	0.5986832094
68	$765763904\,x^2 + 269310738088\,x - 184114722111$	$[1, -1, -2, 1]$	x^2	0.4164251283	0.6110570784
69	$-184880486015\,x^2 - 268544974184\,x + 269310738088$	$[1, -1, -2, 1]$	x^2	0.1938755600	0.4780189375
70	$454191224103\,x^2 + 83664488169\,x - 268544974184$	$[1, -1, -2, 1]$	x^2	0.2567316068	0.3551932333
71	$-722736198287\,x^2 + 370526735934\,x + 83664488169$	$[1, -1, -2, 1]$	x^2	0.3026548325	0.3862581779
72	$806400686456\,x^2 - 1093262934221\,x + 370526735934$	$[1, -1, -2, 1]$	x^2	0.3224210471	0.5348748330
73	$-435873950522\,x^2 + 1899663620677\,x - 1093262934221$	$[1, -1, -2, 1]$	x^2	0.4532248194	0.6271954242
74	$-657388983699\,x^2 - 2335537571199\,x + 1899663620677$	$[1, -1, -2, 1]$	x^2	0.3189481782	0.5552258018
75	$2557052604376\,x^2 + 1678148587500\,x - 2335537571199$	$[1, -1, -2, 1]$	x^2	0.1779966677	0.4031540984
76	$-4892590175575\,x^2 + 878904016876\,x + 1678148587500$	$[1, -1, -2, 1]$	x^2	0.3033865766	0.3488697111
77	$6570738763075\,x^2 - 5771494192451\,x + 878904016876$	$[1, -1, -2, 1]$	x^2	0.2547611629	0.4558730592
78	$-5691834746199\,x^2 + 12342232955526\,x - 5771494192451$	$[1, -1, -2, 1]$	x^2	0.4184835934	0.5989944980
79	$-79659446252\,x^2 - 18034067701725\,x + 12342232955526$	$[1, -1, -2, 1]$	x^2	0.4159723714	0.6108144097
80	$12421892401778\,x^2 + 17954408255473\,x - 18034067701725$	$[1, -1, -2, 1]$	x^2	0.1936647694	0.4775061788

Period $[1, -1, -2, 1]$, norm L_∞

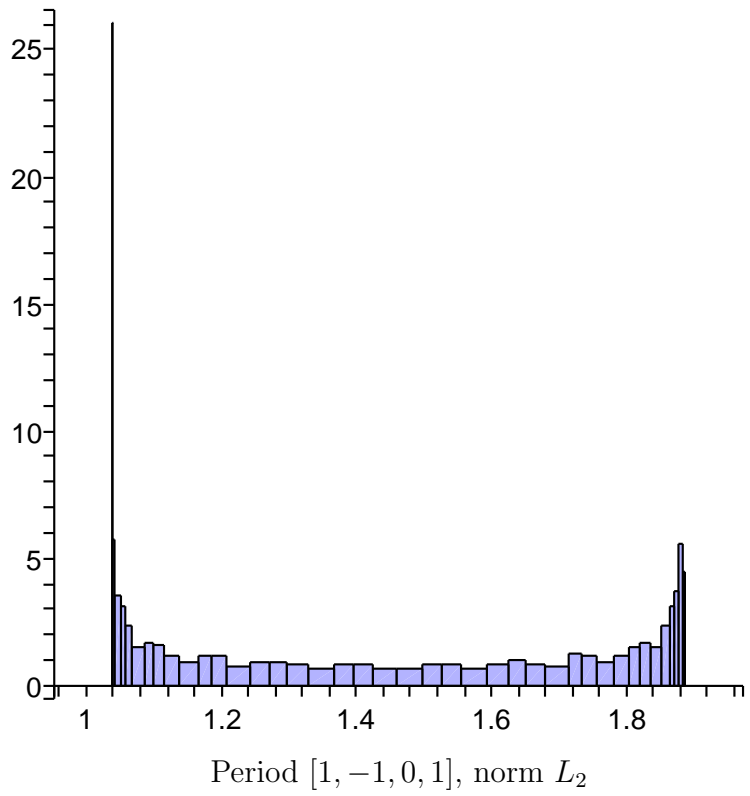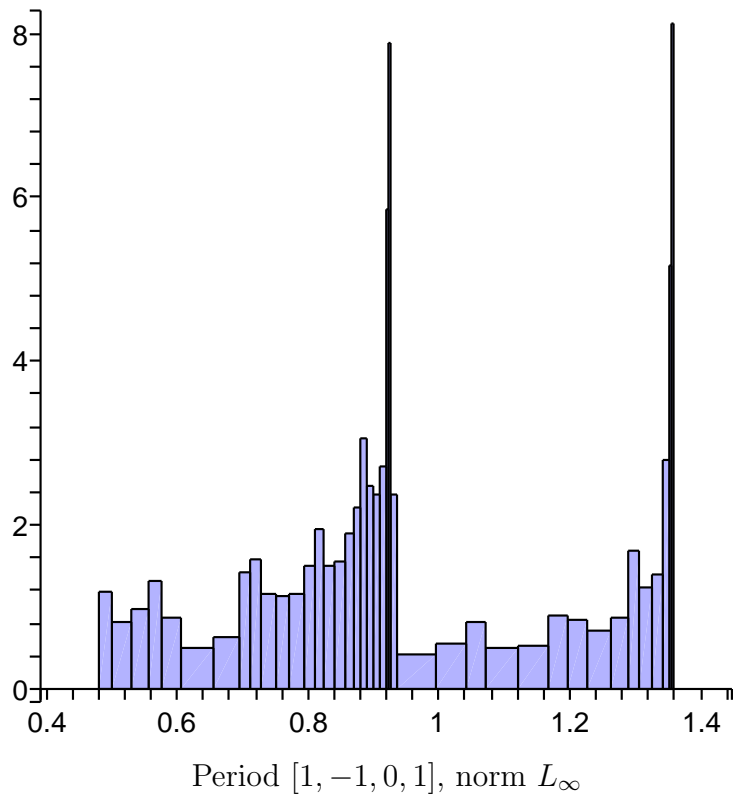

Period $[1, -1, -2, 1]$, norm L_2

Number: $\xi = 0.6823...$ Equation: $x^3 + x - 1 = 0$. Period $[1, -1, 0, 1]$ with initial polynomials $x^2 - 1, -2x + 1, -2x^2 + x$. Period x with initial polynomial $x^2 - 1$.

1	$x^2 + 2x - 2$	$[1, -1, 0, 1]$	x	0.6790926419	1.527958444
2	$2x^2 - 3x + 1$	$[1, -1, 0, 1]$	x	1.042568530	1.621773268
3	$-3x^2 - x + 2$	$[1, -1, 0, 1]$	x	0.7113734951	1.106580992
4	$-x^2 + 5x - 3$	$[1, -1, 0, 1]$	x	1.348305318	1.887627446
5	$5x^2 - 2x - 1$	$[1, -1, 0, 1]$	x	0.9199862068	1.103983448
6	$-2x^2 - 6x + 5$	$[1, -1, 0, 1]$	x	0.9039343220	1.632103637
7	$-6x^2 + 7x - 2$	$[1, -1, 0, 1]$	x	0.8395054588	1.524816037
8	$7x^2 + 4x - 6$	$[1, -1, 0, 1]$	x	0.5728179160	1.180706317
9	$4x^2 - 13x + 7$	$[1, -1, 0, 1]$	x	1.348032261	1.866506208
10	$-13x^2 + 3x + 4$	$[1, -1, 0, 1]$	x	0.9197998925	1.055864965
11	$3x^2 + 17x - 13$	$[1, -1, 0, 1]$	x	1.073241756	1.734269550
12	$17x^2 - 16x + 3$	$[1, -1, 0, 1]$	x	0.7323026902	1.403791316
13	$-16x^2 - 14x + 17$	$[1, -1, 0, 1]$	x	0.4996704863	1.281162043
14	$-14x^2 + 33x - 16$	$[1, -1, 0, 1]$	x	1.284715026	1.817948443
15	$33x^2 - 2x - 14$	$[1, -1, 0, 1]$	x	0.8765967820	1.037587927
16	$-2x^2 - 47x + 33$	$[1, -1, 0, 1]$	x	1.213279268	1.813602600
17	$-47x^2 + 35x - 2$	$[1, -1, 0, 1]$	x	0.8278541784	1.288439414
18	$35x^2 + 45x - 47$	$[1, -1, 0, 1]$	x	0.5648679234	1.395932093
19	$45x^2 - 82x + 35$	$[1, -1, 0, 1]$	x	1.173199775	1.740257965
20	$-82x^2 - 10x + 45$	$[1, -1, 0, 1]$	x	0.8005068259	1.053492698
21	$-10x^2 + 127x - 82$	$[1, -1, 0, 1]$	x	1.310200754	1.864532080
22	$127x^2 - 72x - 10$	$[1, -1, 0, 1]$	x	0.8939864032	1.186864087
23	$-72x^2 - 137x + 127$	$[1, -1, 0, 1]$	x	0.7098354332	1.515883842
24	$-137x^2 + 199x - 72$	$[1, -1, 0, 1]$	x	1.021917324	1.640032666
25	$199x^2 + 65x - 137$	$[1, -1, 0, 1]$	x	0.6972826032	1.102154101
26	$65x^2 - 336x + 199$	$[1, -1, 0, 1]$	x	1.356357897	1.882893303
27	$-336x^2 + 134x + 65$	$[1, -1, 0, 1]$	x	0.9254807053	1.107312546
28	$134x^2 + 401x - 336$	$[1, -1, 0, 1]$	x	0.8994367488	1.631354445
29	$401x^2 - 470x + 134$	$[1, -1, 0, 1]$	x	0.8430836497	1.525324953
30	$-470x^2 - 267x + 401$	$[1, -1, 0, 1]$	x	0.5752594152	1.179659405
31	$-267x^2 + 871x - 470$	$[1, -1, 0, 1]$	x	1.348023297	1.867211661
32	$871x^2 - 203x - 267$	$[1, -1, 0, 1]$	x	0.9197937761	1.056188936
33	$-203x^2 - 1138x + 871$	$[1, -1, 0, 1]$	x	1.071350926	1.733042758
34	$-1138x^2 + 1074x - 203$	$[1, -1, 0, 1]$	x	0.7310125241	1.405375478
35	$1074x^2 + 935x - 1138$	$[1, -1, 0, 1]$	x	0.4987901702	1.279765432
36	$935x^2 - 2212x + 1074$	$[1, -1, 0, 1]$	x	1.285868850	1.818749985
37	$-2212x^2 + 139x + 935$	$[1, -1, 0, 1]$	x	0.8773840684	1.037611331
38	$139x^2 + 3147x - 2212$	$[1, -1, 0, 1]$	x	1.211730538	1.812758054
39	$3147x^2 - 2351x + 139$	$[1, -1, 0, 1]$	x	0.8267974371	1.289845824
40	$-2351x^2 - 3008x + 3147$	$[1, -1, 0, 1]$	x	0.5641468795	1.394408885

41	$-3008\,x^2 + 5498\,x - 2351$	$[1, -1, 0, 1]$	x	1.174900920	1.741411771
42	$5498\,x^2 + 657\,x - 3008$	$[1, -1, 0, 1]$	x	0.8016675645	1.053076107
43	$657\,x^2 - 8506\,x + 5498$	$[1, -1, 0, 1]$	x	1.309268341	1.864079446
44	$-8506\,x^2 + 4841\,x + 657$	$[1, -1, 0, 1]$	x	0.8933501920	1.188041643
45	$4841\,x^2 + 9163\,x - 8506$	$[1, -1, 0, 1]$	x	0.7073582448	1.514355496
46	$9163\,x^2 - 13347\,x + 4841$	$[1, -1, 0, 1]$	x	1.024057721	1.641426432
47	$-13347\,x^2 - 4322\,x + 9163$	$[1, -1, 0, 1]$	x	0.6987430556	1.101337611
48	$-4322\,x^2 + 22510\,x - 13347$	$[1, -1, 0, 1]$	x	1.356107889	1.882873115
49	$22510\,x^2 - 9025\,x - 4322$	$[1, -1, 0, 1]$	x	0.9253101173	1.108163028
50	$-9025\,x^2 - 26832\,x + 22510$	$[1, -1, 0, 1]$	x	0.8970888933	1.629943844
51	$-26832\,x^2 + 31535\,x - 9025$	$[1, -1, 0, 1]$	x	0.8454893245	1.526847557
52	$31535\,x^2 + 17807\,x - 26832$	$[1, -1, 0, 1]$	x	0.5769008740	1.178508491
53	$17807\,x^2 - 58367\,x + 31535$	$[1, -1, 0, 1]$	x	1.348476362	1.867625274
54	$-58367\,x^2 + 13728\,x + 17807$	$[1, -1, 0, 1]$	x	0.9201029146	1.056644016
55	$13728\,x^2 + 76174\,x - 58367$	$[1, -1, 0, 1]$	x	1.069321391	1.731863552
56	$76174\,x^2 - 72095\,x + 13728$	$[1, -1, 0, 1]$	x	0.7296277166	1.406904211
57	$-72095\,x^2 - 62446\,x + 76174$	$[1, -1, 0, 1]$	x	0.4978452775	1.278372809
58	$-62446\,x^2 + 148269\,x - 72095$	$[1, -1, 0, 1]$	x	1.286988464	1.819564100
59	$148269\,x^2 - 9649\,x - 62446$	$[1, -1, 0, 1]$	x	0.8781480121	1.037634345
60	$-9649\,x^2 - 210715\,x + 148269$	$[1, -1, 0, 1]$	x	1.210182808	1.811905222
61	$-210715\,x^2 + 157918\,x - 9649$	$[1, -1, 0, 1]$	x	0.8257413777	1.291257554
62	$157918\,x^2 + 201066\,x - 210715$	$[1, -1, 0, 1]$	x	0.5634263008	1.392886725
63	$201066\,x^2 - 368633\,x + 157918$	$[1, -1, 0, 1]$	x	1.176596903	1.742560812
64	$-368633\,x^2 - 43148\,x + 201066$	$[1, -1, 0, 1]$	x	0.8028247806	1.052665202
65	$-43148\,x^2 + 569699\,x - 368633$	$[1, -1, 0, 1]$	x	1.308327081	1.863621682
66	$569699\,x^2 - 325485\,x - 43148$	$[1, -1, 0, 1]$	x	0.8927079436	1.189222658
67	$-325485\,x^2 - 612847\,x + 569699$	$[1, -1, 0, 1]$	x	0.7048808022	1.512826407
68	$-612847\,x^2 + 895184\,x - 325485$	$[1, -1, 0, 1]$	x	1.026193465	1.642817847
69	$895184\,x^2 + 287362\,x - 612847$	$[1, -1, 0, 1]$	x	0.7002003330	1.100525884
70	$287362\,x^2 - 1508031\,x + 895184$	$[1, -1, 0, 1]$	x	1.355848914	1.882847291
71	$-1508031\,x^2 + 607822\,x + 287362$	$[1, -1, 0, 1]$	x	0.9251334115	1.109018200
72	$607822\,x^2 + 1795393\,x - 1508031$	$[1, -1, 0, 1]$	x	0.8947381414	1.628530988
73	$1795393\,x^2 - 2115853\,x + 607822$	$[1, -1, 0, 1]$	x	0.8478928003	1.528369271
74	$-2115853\,x^2 - 1187571\,x + 1795393$	$[1, -1, 0, 1]$	x	0.5785408323	1.177361325
75	$-1187571\,x^2 + 3911246\,x - 2115853$	$[1, -1, 0, 1]$	x	1.348920533	1.868033469
76	$3911246\,x^2 - 928282\,x - 1187571$	$[1, -1, 0, 1]$	x	0.9204059846	1.057104463
77	$-928282\,x^2 - 5098817\,x + 3911246$	$[1, -1, 0, 1]$	x	1.067286678	1.730680732
78	$-5098817\,x^2 + 4839528\,x - 928282$	$[1, -1, 0, 1]$	x	0.7282393751	1.408433653
79	$4839528\,x^2 + 4170535\,x - 5098817$	$[1, -1, 0, 1]$	x	0.4968979735	1.276982605
80	$4170535\,x^2 - 9938345\,x + 4839528$	$[1, -1, 0, 1]$	x	1.288100003	1.820373437

Period $[1, -1, 0, 1]$, norm L_∞

Period $[1, -1, 0, 1]$, norm L_2

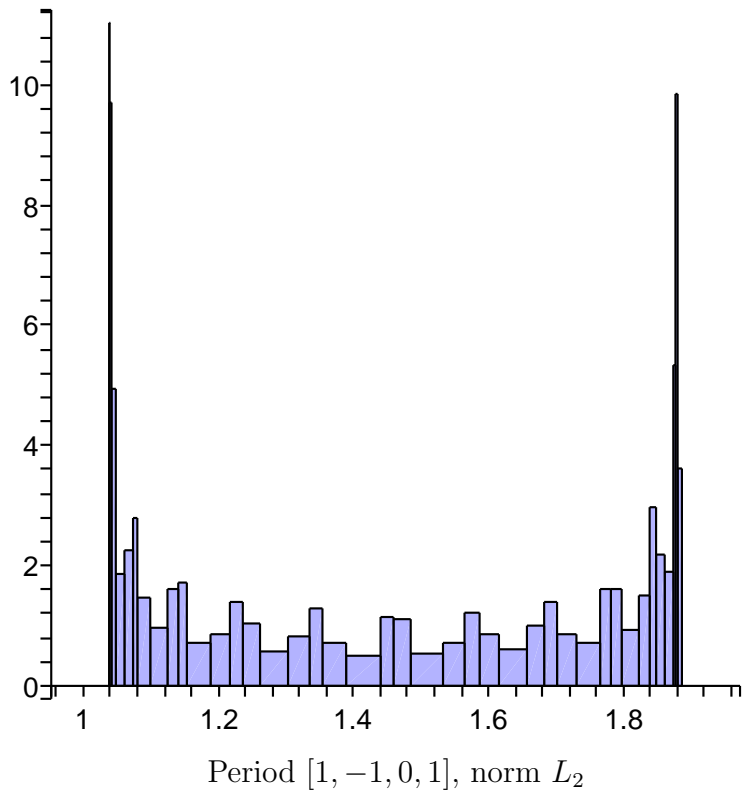Period $[1, -1, 0, 1]$, norm L_∞
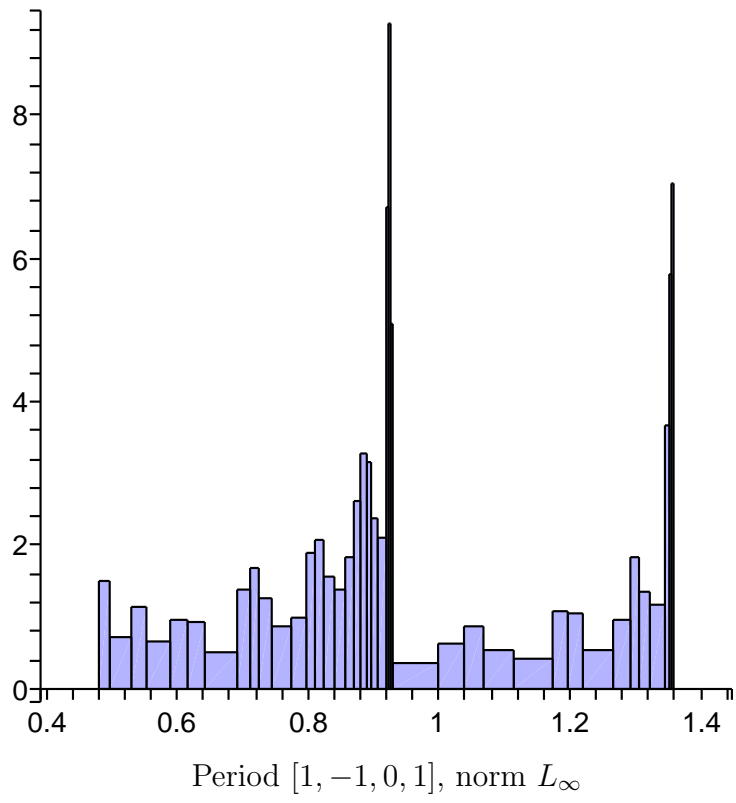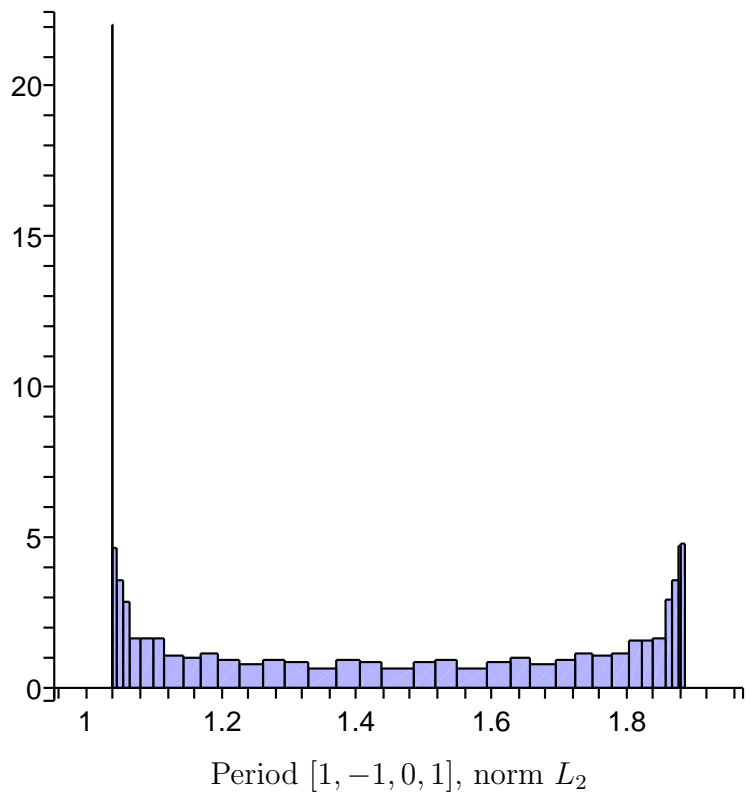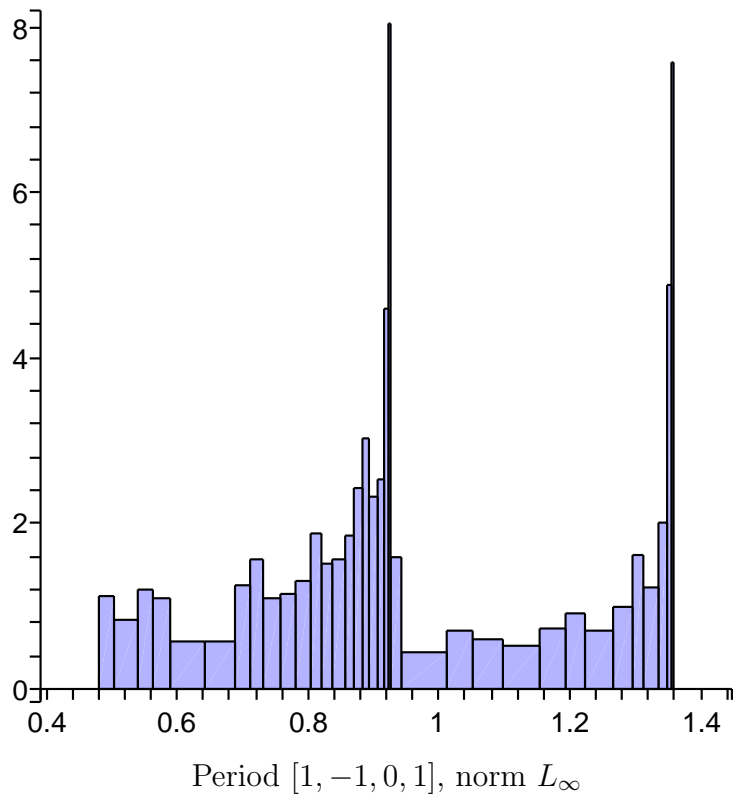

Period $[1, -1, 0, 1]$, norm L_2

Number: $\xi = 0.6823...$ Equation: $x^3 + x - 1 = 0$. Period $[1, -1, 0, 1]$ with initial polynomials $x^2 + x, x^2 - x + 1, -x^2 + 1$. Period x with initial polynomial $x^2 + x$.

1	$2x - 1$	$[1, -1, 0, 1]$	x	1.458622431	1.823278038
2	$2x^2 - x$	$[1, -1, 0, 1]$	x	0.9952586397	1.244073300
3	$-x^2 - 2x + 2$	$[1, -1, 0, 1]$	x	0.6790926419	1.527958444
4	$-2x^2 + 3x - 1$	$[1, -1, 0, 1]$	x	1.042568530	1.621773268
5	$3x^2 + x - 2$	$[1, -1, 0, 1]$	x	0.7113734951	1.106580992
6	$x^2 - 5x + 3$	$[1, -1, 0, 1]$	x	1.348305318	1.887627446
7	$-5x^2 + 2x + 1$	$[1, -1, 0, 1]$	x	0.9199862068	1.103983448
8	$2x^2 + 6x - 5$	$[1, -1, 0, 1]$	x	0.9039343220	1.632103637
9	$6x^2 - 7x + 2$	$[1, -1, 0, 1]$	x	0.8395054588	1.524816037
10	$-7x^2 - 4x + 6$	$[1, -1, 0, 1]$	x	0.5728179160	1.180706317
11	$-4x^2 + 13x - 7$	$[1, -1, 0, 1]$	x	1.348032261	1.866506208
12	$13x^2 - 3x - 4$	$[1, -1, 0, 1]$	x	0.9197998925	1.055864965
13	$-3x^2 - 17x + 13$	$[1, -1, 0, 1]$	x	1.073241756	1.734269550
14	$-17x^2 + 16x - 3$	$[1, -1, 0, 1]$	x	0.7323026902	1.403791316
15	$16x^2 + 14x - 17$	$[1, -1, 0, 1]$	x	0.4996704863	1.281162043
16	$14x^2 - 33x + 16$	$[1, -1, 0, 1]$	x	1.284715026	1.817948443
17	$-33x^2 + 2x + 14$	$[1, -1, 0, 1]$	x	0.8765967820	1.037587927
18	$2x^2 + 47x - 33$	$[1, -1, 0, 1]$	x	1.213279268	1.813602600
19	$47x^2 - 35x + 2$	$[1, -1, 0, 1]$	x	0.8278541784	1.288439414
20	$-35x^2 - 45x + 47$	$[1, -1, 0, 1]$	x	0.5648679234	1.395932093
21	$-45x^2 + 82x - 35$	$[1, -1, 0, 1]$	x	1.173199775	1.740257965
22	$82x^2 + 10x - 45$	$[1, -1, 0, 1]$	x	0.8005068259	1.053492698
23	$10x^2 - 127x + 82$	$[1, -1, 0, 1]$	x	1.310200754	1.864532080
24	$-127x^2 + 72x + 10$	$[1, -1, 0, 1]$	x	0.8939864032	1.186864087
25	$72x^2 + 137x - 127$	$[1, -1, 0, 1]$	x	0.7098354332	1.515883842
26	$137x^2 - 199x + 72$	$[1, -1, 0, 1]$	x	1.021917324	1.640032666
27	$-199x^2 - 65x + 137$	$[1, -1, 0, 1]$	x	0.6972826032	1.102154101
28	$-65x^2 + 336x - 199$	$[1, -1, 0, 1]$	x	1.356357897	1.882893303
29	$336x^2 - 134x - 65$	$[1, -1, 0, 1]$	x	0.9254807053	1.107312546
30	$-134x^2 - 401x + 336$	$[1, -1, 0, 1]$	x	0.8994367488	1.631354445
31	$-401x^2 + 470x - 134$	$[1, -1, 0, 1]$	x	0.8430836497	1.525324953
32	$470x^2 + 267x - 401$	$[1, -1, 0, 1]$	x	0.5752594152	1.179659405
33	$267x^2 - 871x + 470$	$[1, -1, 0, 1]$	x	1.348023297	1.867211661
34	$-871x^2 + 203x + 267$	$[1, -1, 0, 1]$	x	0.9197937761	1.056188936
35	$203x^2 + 1138x - 871$	$[1, -1, 0, 1]$	x	1.071350926	1.733042758
36	$1138x^2 - 1074x + 203$	$[1, -1, 0, 1]$	x	0.7310125241	1.405375478
37	$-1074x^2 - 935x + 1138$	$[1, -1, 0, 1]$	x	0.4987901702	1.279765432
38	$-935x^2 + 2212x - 1074$	$[1, -1, 0, 1]$	x	1.285868850	1.818749985
39	$2212x^2 - 139x - 935$	$[1, -1, 0, 1]$	x	0.8773840684	1.037611331
40	$-139x^2 - 3147x + 2212$	$[1, -1, 0, 1]$	x	1.211730538	1.812758054

41	$-3147\,x^2 + 2351\,x - 139$	$[1, -1, 0, 1]$	x	0.8267974371	1.289845824
42	$2351\,x^2 + 3008\,x - 3147$	$[1, -1, 0, 1]$	x	0.5641468795	1.394408885
43	$3008\,x^2 - 5498\,x + 2351$	$[1, -1, 0, 1]$	x	1.174900920	1.741411771
44	$-5498\,x^2 - 657\,x + 3008$	$[1, -1, 0, 1]$	x	0.8016675645	1.053076107
45	$-657\,x^2 + 8506\,x - 5498$	$[1, -1, 0, 1]$	x	1.309268341	1.864079446
46	$8506\,x^2 - 4841\,x - 657$	$[1, -1, 0, 1]$	x	0.8933501920	1.188041643
47	$-4841\,x^2 - 9163\,x + 8506$	$[1, -1, 0, 1]$	x	0.7073582448	1.514355496
48	$-9163\,x^2 + 13347\,x - 4841$	$[1, -1, 0, 1]$	x	1.024057721	1.641426432
49	$13347\,x^2 + 4322\,x - 9163$	$[1, -1, 0, 1]$	x	0.6987430556	1.101337611
50	$4322\,x^2 - 22510\,x + 13347$	$[1, -1, 0, 1]$	x	1.356107889	1.882873115
51	$-22510\,x^2 + 9025\,x + 4322$	$[1, -1, 0, 1]$	x	0.9253101173	1.108163028
52	$9025\,x^2 + 26832\,x - 22510$	$[1, -1, 0, 1]$	x	0.8970888933	1.629943844
53	$26832\,x^2 - 31535\,x + 9025$	$[1, -1, 0, 1]$	x	0.8454893245	1.526847557
54	$-31535\,x^2 - 17807\,x + 26832$	$[1, -1, 0, 1]$	x	0.5769008740	1.178508491
55	$-17807\,x^2 + 58367\,x - 31535$	$[1, -1, 0, 1]$	x	1.348476362	1.867625274
56	$58367\,x^2 - 13728\,x - 17807$	$[1, -1, 0, 1]$	x	0.9201029146	1.056644016
57	$-13728\,x^2 - 76174\,x + 58367$	$[1, -1, 0, 1]$	x	1.069321391	1.731863552
58	$-76174\,x^2 + 72095\,x - 13728$	$[1, -1, 0, 1]$	x	0.7296277166	1.406904211
59	$72095\,x^2 + 62446\,x - 76174$	$[1, -1, 0, 1]$	x	0.4978452775	1.278372809
60	$62446\,x^2 - 148269\,x + 72095$	$[1, -1, 0, 1]$	x	1.286988464	1.819564100
61	$-148269\,x^2 + 9649\,x + 62446$	$[1, -1, 0, 1]$	x	0.8781480121	1.037634345
62	$9649\,x^2 + 210715\,x - 148269$	$[1, -1, 0, 1]$	x	1.210182808	1.811905222
63	$210715\,x^2 - 157918\,x + 9649$	$[1, -1, 0, 1]$	x	0.8257413777	1.291257554
64	$-157918\,x^2 - 201066\,x + 210715$	$[1, -1, 0, 1]$	x	0.5634263008	1.392886725
65	$-201066\,x^2 + 368633\,x - 157918$	$[1, -1, 0, 1]$	x	1.176596903	1.742560812
66	$368633\,x^2 + 43148\,x - 201066$	$[1, -1, 0, 1]$	x	0.8028247806	1.052665202
67	$43148\,x^2 - 569699\,x + 368633$	$[1, -1, 0, 1]$	x	1.308327081	1.863621682
68	$-569699\,x^2 + 325485\,x + 43148$	$[1, -1, 0, 1]$	x	0.8927079436	1.189222658
69	$325485\,x^2 + 612847\,x - 569699$	$[1, -1, 0, 1]$	x	0.7048808022	1.512826407
70	$612847\,x^2 - 895184\,x + 325485$	$[1, -1, 0, 1]$	x	1.026193465	1.642817847
71	$-895184\,x^2 - 287362\,x + 612847$	$[1, -1, 0, 1]$	x	0.7002003330	1.100525884
72	$-287362\,x^2 + 1508031\,x - 895184$	$[1, -1, 0, 1]$	x	1.355848914	1.882847291
73	$1508031\,x^2 - 607822\,x - 287362$	$[1, -1, 0, 1]$	x	0.9251334115	1.109018200
74	$-607822\,x^2 - 1795393\,x + 1508031$	$[1, -1, 0, 1]$	x	0.8947381414	1.628530988
75	$-1795393\,x^2 + 2115853\,x - 607822$	$[1, -1, 0, 1]$	x	0.8478928003	1.528369271
76	$2115853\,x^2 + 1187571\,x - 1795393$	$[1, -1, 0, 1]$	x	0.5785408323	1.177361325
77	$1187571\,x^2 - 3911246\,x + 2115853$	$[1, -1, 0, 1]$	x	1.348920533	1.868033469
78	$-3911246\,x^2 + 928282\,x + 1187571$	$[1, -1, 0, 1]$	x	0.9204059846	1.057104463
79	$928282\,x^2 + 5098817\,x - 3911246$	$[1, -1, 0, 1]$	x	1.067286678	1.730680732
80	$5098817\,x^2 - 4839528\,x + 928282$	$[1, -1, 0, 1]$	x	0.7282393751	1.408433653

Period $[1, -1, 0, 1]$, norm L_∞

Period $[1, -1, 0, 1]$, norm L_2

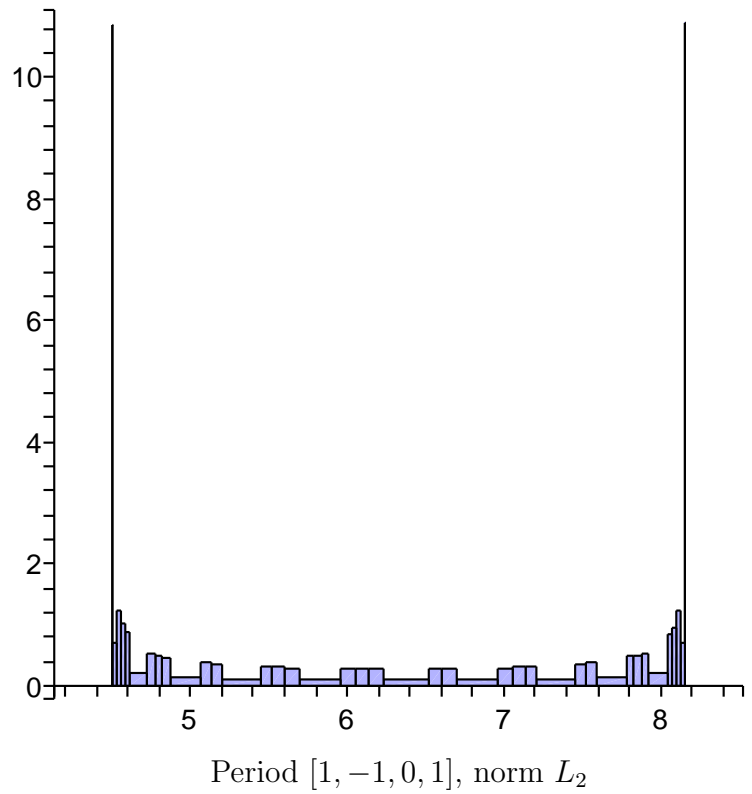Period $[1, -1, 0, 1]$, norm L_∞
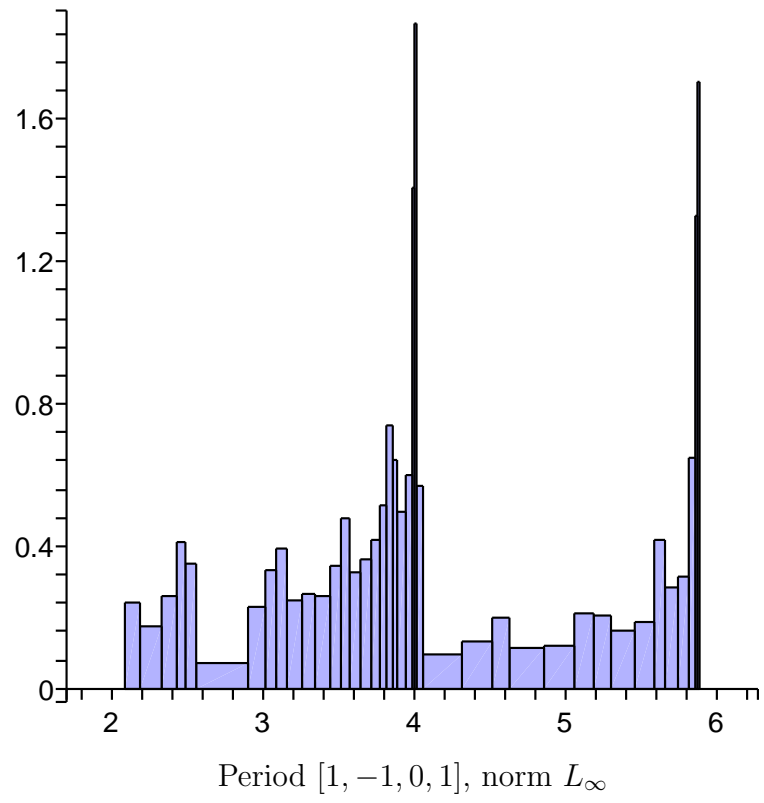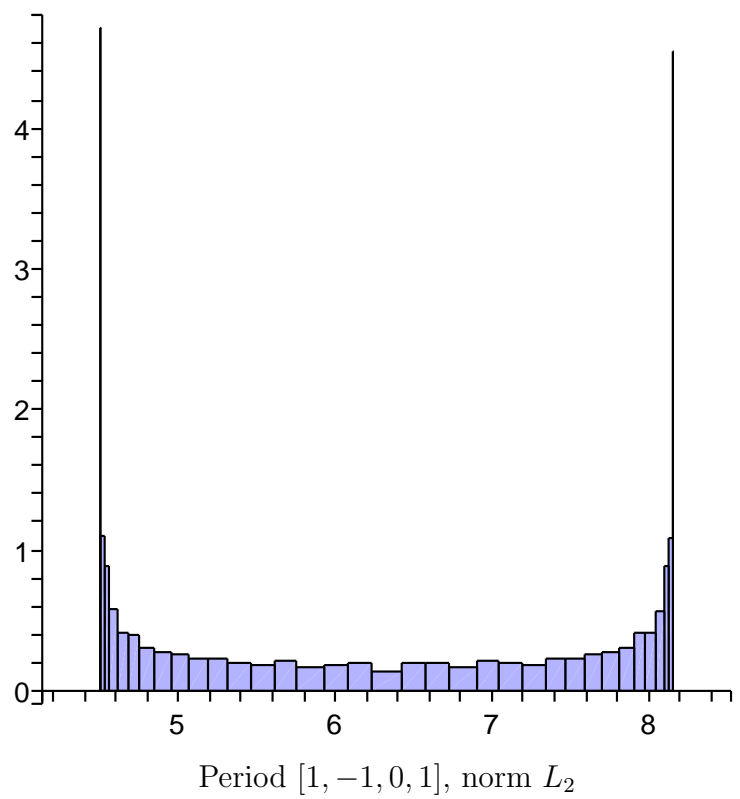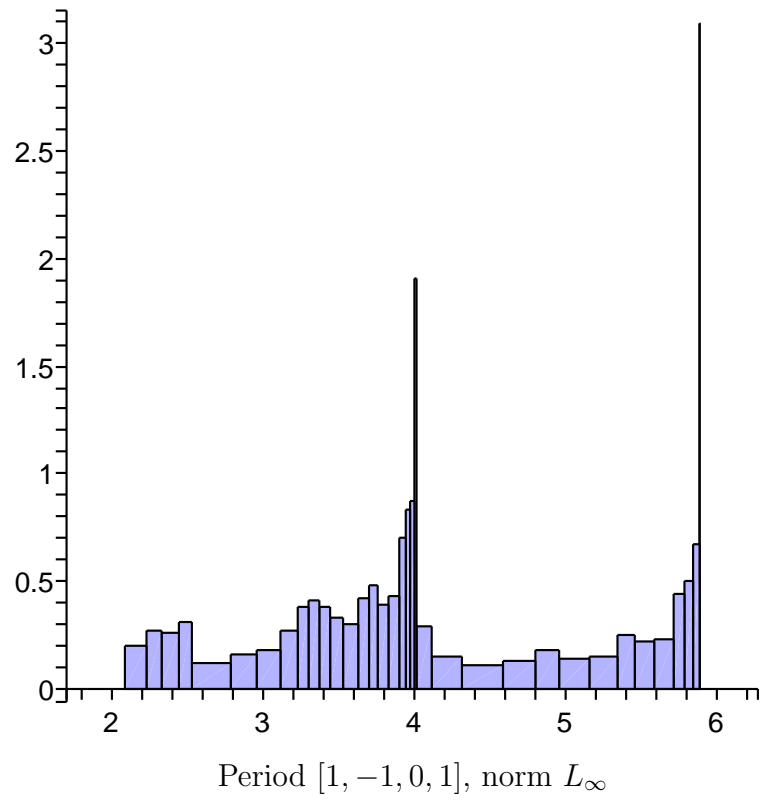

Period $[1, -1, 0, 1]$, norm L_2

Number: $\xi = 0.6823...$ Equation: $x^3 + x - 1 = 0$. Period $[1, -1, 0, 1]$ with initial polynomials $2x + 1, 2x^2 + x, x^2 - 2x + 2$. Period x with initial polynomial $2x + 1$.

1	$-2\,x^2 + x + 1$	$[1, -1, 0, 1]$	x	3.004741360	4.507112040
2	$x^2 + 3\,x - 2$	$[1, -1, 0, 1]$	x	4.612991790	7.175765007
3	$3\,x^2 - 3\,x + 1$	$[1, -1, 0, 1]$	x	3.147572557	6.644875399
4	$-3\,x^2 - 2\,x + 3$	$[1, -1, 0, 1]$	x	2.147676270	5.249875328
5	$-2\,x^2 + 6\,x - 3$	$[1, -1, 0, 1]$	x	5.861676932	7.978393602
6	$6\,x^2 - x - 2$	$[1, -1, 0, 1]$	x	3.999585148	4.555083085
7	$-x^2 - 8\,x + 6$	$[1, -1, 0, 1]$	x	4.851605600	7.656440087
8	$-8\,x^2 + 7\,x - 1$	$[1, -1, 0, 1]$	x	3.310385394	5.896623983
9	$7\,x^2 + 7\,x - 8$	$[1, -1, 0, 1]$	x	2.258767996	5.717506489
10	$7\,x^2 - 15\,x + 7$	$[1, -1, 0, 1]$	x	5.418352286	7.778345727
11	$-15\,x^2 + 7$	$[1, -1, 0, 1]$	x	3.697092416	4.502236986
12	$22\,x - 15$	$[1, -1, 0, 1]$	x	5.426455161	7.949084109
13	$22\,x^2 - 15\,x$	$[1, -1, 0, 1]$	x	3.702621232	5.423881103
14	$-15\,x^2 - 22\,x + 22$	$[1, -1, 0, 1]$	x	2.526401414	6.227266295
15	$-22\,x^2 + 37\,x - 15$	$[1, -1, 0, 1]$	x	4.875885636	7.401088643
16	$37\,x^2 + 7\,x - 22$	$[1, -1, 0, 1]$	x	3.326952338	4.622252262
17	$7\,x^2 - 59\,x + 37$	$[1, -1, 0, 1]$	x	5.772184746	8.123508495
18	$-59\,x^2 + 30\,x + 7$	$[1, -1, 0, 1]$	x	3.938522141	5.012253113
19	$30\,x^2 + 66\,x - 59$	$[1, -1, 0, 1]$	x	3.362870996	6.745042216
20	$66\,x^2 - 89\,x + 30$	$[1, -1, 0, 1]$	x	4.172491093	6.941158330
21	$-89\,x^2 - 36\,x + 66$	$[1, -1, 0, 1]$	x	2.847006684	4.878477682
22	$-36\,x^2 + 155\,x - 89$	$[1, -1, 0, 1]$	x	5.892029849	8.152460197
23	$155\,x^2 - 53\,x - 36$	$[1, -1, 0, 1]$	x	4.020295787	4.707218334
24	$-53\,x^2 - 191\,x + 155$	$[1, -1, 0, 1]$	x	4.165377947	7.229267420
25	$-191\,x^2 + 208\,x - 53$	$[1, -1, 0, 1]$	x	3.370601559	6.431597659
26	$208\,x^2 + 138\,x - 191$	$[1, -1, 0, 1]$	x	2.299855159	5.251488335
27	$138\,x^2 - 399\,x + 208$	$[1, -1, 0, 1]$	x	5.774477264	8.034489007
28	$-399\,x^2 + 70\,x + 138$	$[1, -1, 0, 1]$	x	3.940086390	4.532679581
29	$70\,x^2 + 537\,x - 399$	$[1, -1, 0, 1]$	x	4.869693111	7.640870003
30	$537\,x^2 - 469\,x + 70$	$[1, -1, 0, 1]$	x	3.322727006	5.913684138
31	$-469\,x^2 - 467\,x + 537$	$[1, -1, 0, 1]$	x	2.267189021	5.711186643
32	$-467\,x^2 + 1006\,x - 469$	$[1, -1, 0, 1]$	x	5.429104340	7.779039674
33	$1006\,x^2 - 2\,x - 467$	$[1, -1, 0, 1]$	x	3.704428841	4.502730481
34	$-2\,x^2 - 1473\,x + 1006$	$[1, -1, 0, 1]$	x	5.419058726	7.946703512
35	$-1473\,x^2 + 1008\,x - 2$	$[1, -1, 0, 1]$	x	3.697574439	5.429121128
36	$1008\,x^2 + 1471\,x - 1473$	$[1, -1, 0, 1]$	x	2.522957847	6.220546933
37	$1471\,x^2 - 2481\,x + 1008$	$[1, -1, 0, 1]$	x	4.883723838	7.406691679
38	$-2481\,x^2 - 463\,x + 1471$	$[1, -1, 0, 1]$	x	3.332300561	4.619781591
39	$-463\,x^2 + 3952\,x - 2481$	$[1, -1, 0, 1]$	x	5.769226345	8.122133173
40	$3952\,x^2 - 2018\,x - 463$	$[1, -1, 0, 1]$	x	3.936503542	5.016939816

41	$-2018\,x^2 - 4415\,x + 3952$	$[1, -1, 0, 1]$	x	3.352210322	6.738541355
42	$-4415\,x^2 + 5970\,x - 2018$	$[1, -1, 0, 1]$	x	4.182265255	6.947436575
43	$5970\,x^2 + 2397\,x - 4415$	$[1, -1, 0, 1]$	x	2.853675866	4.874404799
44	$2397\,x^2 - 10385\,x + 5970$	$[1, -1, 0, 1]$	x	5.891990669	8.153028575
45	$-10385\,x^2 + 3573\,x + 2397$	$[1, -1, 0, 1]$	x	4.020269053	4.710340415
46	$3573\,x^2 + 12782\,x - 10385$	$[1, -1, 0, 1]$	x	4.155591144	7.223446650
47	$12782\,x^2 - 13958\,x + 3573$	$[1, -1, 0, 1]$	x	3.381229443	6.438266316
48	$-13958\,x^2 - 9209\,x + 12782$	$[1, -1, 0, 1]$	x	2.307106860	5.246090787
49	$-9209\,x^2 + 26740\,x - 13958$	$[1, -1, 0, 1]$	x	5.777463320	8.036901161
50	$26740\,x^2 - 4749\,x - 9209$	$[1, -1, 0, 1]$	x	3.942123859	4.534018803
51	$-4749\,x^2 - 35949\,x + 26740$	$[1, -1, 0, 1]$	x	4.861543276	7.636204813
52	$-35949\,x^2 + 31489\,x - 4749$	$[1, -1, 0, 1]$	x	3.317166147	5.920193394
53	$31489\,x^2 + 31200\,x - 35949$	$[1, -1, 0, 1]$	x	2.263394692	5.704901107
54	$31200\,x^2 - 67438\,x + 31489$	$[1, -1, 0, 1]$	x	5.434869213	7.783104726
55	$-67438\,x^2 + 289\,x + 31200$	$[1, -1, 0, 1]$	x	3.708362374	4.502177282
56	$289\,x^2 + 98638\,x - 67438$	$[1, -1, 0, 1]$	x	5.413203901	7.943569125
57	$98638\,x^2 - 67727\,x + 289$	$[1, -1, 0, 1]$	x	3.693579530	5.434947388
58	$-67727\,x^2 - 98349\,x + 98638$	$[1, -1, 0, 1]$	x	2.520232009	6.213879642
59	$-98349\,x^2 + 166365\,x - 67727$	$[1, -1, 0, 1]$	x	4.891803513	7.412081991
60	$166365\,x^2 + 30622\,x - 98349$	$[1, -1, 0, 1]$	x	3.337813548	4.617380611
61	$30622\,x^2 - 264714\,x + 166365$	$[1, -1, 0, 1]$	x	5.766138025	8.120782097
62	$-264714\,x^2 + 135743\,x + 30622$	$[1, -1, 0, 1]$	x	3.934396295	5.021613749
63	$135743\,x^2 + 295336\,x - 264714$	$[1, -1, 0, 1]$	x	3.341566643	6.732029343
64	$295336\,x^2 - 400457\,x + 135743$	$[1, -1, 0, 1]$	x	4.192008913	6.953717981
65	$-400457\,x^2 - 159593\,x + 295336$	$[1, -1, 0, 1]$	x	2.860324236	4.870349428
66	$-159593\,x^2 + 695793\,x - 400457$	$[1, -1, 0, 1]$	x	5.891917617	8.153569632
67	$695793\,x^2 - 240864\,x - 159593$	$[1, -1, 0, 1]$	x	4.020219208	4.713485549
68	$-240864\,x^2 - 855386\,x + 695793$	$[1, -1, 0, 1]$	x	4.145786835	7.217614445
69	$-855386\,x^2 + 936657\,x - 240864$	$[1, -1, 0, 1]$	x	3.391852258	6.444932862
70	$936657\,x^2 + 614522\,x - 855386$	$[1, -1, 0, 1]$	x	2.314355102	5.240707677
71	$614522\,x^2 - 1792043\,x + 936657$	$[1, -1, 0, 1]$	x	5.780411420	8.039290771
72	$-1792043\,x^2 + 322135\,x + 614522$	$[1, -1, 0, 1]$	x	3.944135430	4.535381806
73	$322135\,x^2 + 2406565\,x - 1792043$	$[1, -1, 0, 1]$	x	4.853368054	7.631522186
74	$2406565\,x^2 - 2114178\,x + 322135$	$[1, -1, 0, 1]$	x	3.311587965	5.926708105
75	$-2114178\,x^2 - 2084430\,x + 2406565$	$[1, -1, 0, 1]$	x	2.259588543	5.698623854
76	$-2084430\,x^2 + 4520743\,x - 2114178$	$[1, -1, 0, 1]$	x	5.440601002	7.787150412
77	$4520743\,x^2 - 29748\,x - 2084430$	$[1, -1, 0, 1]$	x	3.712273333	4.501648365
78	$-29748\,x^2 - 6605173\,x + 4520743$	$[1, -1, 0, 1]$	x	5.407316260	7.940413250
79	$-6605173\,x^2 + 4550491\,x - 29748$	$[1, -1, 0, 1]$	x	3.689562228	5.440785520
80	$4550491\,x^2 + 6575425\,x - 6605173$	$[1, -1, 0, 1]$	x	2.517490892	6.207213864

Period $[1, -1, 0, 1]$, norm L_∞

Period $[1, -1, 0, 1]$, norm L_2

Period $[1, -1, 0, 1]$, norm L_∞
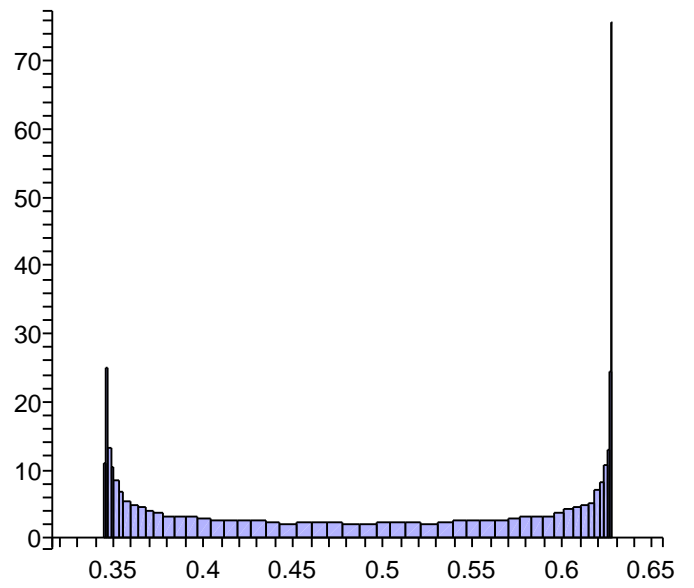

Period $[1, -1, 0, 1]$, norm L_2

Number: $\xi = 0.6823...$ Equation: $x^3 + x - 1 = 0$. Period $[1, -1, 0, 1]$ with initial polynomials $1, x, x^2$. Period x with initial polynomial 1.
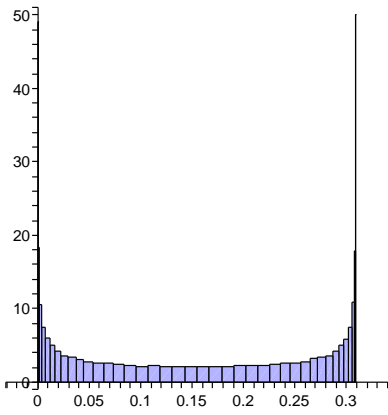
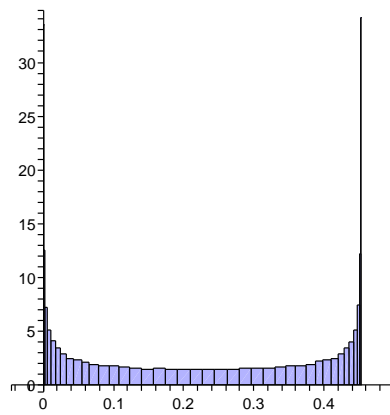|					
1	$1 - x$	$[1, -1, 0, 1]$	x	0.3176721962	0.6353443923
2	$-x^2 + x$	$[1, -1, 0, 1]$	x	0.2167565720	0.4335131439
3	$x^2 + x - 1$	$[1, -1, 0, 1]$	x	0.1478990357	0.4436971071
4	$1 - 2x + x^2$	$[1, -1, 0, 1]$	x	0.4036624969	0.6054937453
5	$-2x^2 + 1$	$[1, -1, 0, 1]$	x	0.2754301450	0.3442876812
6	$3x - 2$	$[1, -1, 0, 1]$	x	0.4228507034	0.6107843493
7	$3x^2 - 2x$	$[1, -1, 0, 1]$	x	0.2885227918	0.4167551437
8	$-2x^2 - 3x + 3$	$[1, -1, 0, 1]$	x	0.1968671229	0.4812307448
9	$5x - 2 - 3x^2$	$[1, -1, 0, 1]$	x	0.3731330877	0.5671622934
10	$x + 5x^2 - 3$	$[1, -1, 0, 1]$	x	0.2545990803	0.3564387124
11	$x^2 - 8x + 5$	$[1, -1, 0, 1]$	x	0.4447232802	0.6253921127
12	$-8x^2 + 4x + 1$	$[1, -1, 0, 1]$	x	0.3034470591	0.3840501841
13	$9x + 4x^2 - 8$	$[1, -1, 0, 1]$	x	0.2620481187	0.5208610754
14	$9x^2 - 12x + 4$	$[1, -1, 0, 1]$	x	0.3178714975	0.5319932701
15	$-12x^2 - 5x + 9$	$[1, -1, 0, 1]$	x	0.2168925608	0.3765495847
16	$-5x^2 - 12 + 21x$	$[1, -1, 0, 1]$	x	0.4532249630	0.6269098128
17	$21x^2 - 7x - 5$	$[1, -1, 0, 1]$	x	0.3092479937	0.3611399472
18	$-7x^2 - 26x + 21$	$[1, -1, 0, 1]$	x	0.3234506779	0.5579045716
19	$-26x^2 - 7 + 28x$	$[1, -1, 0, 1]$	x	0.2559590566	0.4926558884
20	$28x^2 - 26 + 19x$	$[1, -1, 0, 1]$	x	0.1746479810	0.4056555783
21	$19x^2 - 54x + 28$	$[1, -1, 0, 1]$	x	0.4432289252	0.6172677179
22	$-54x^2 + 9x + 19$	$[1, -1, 0, 1]$	x	0.3024274191	0.3482686123
23	$9x^2 - 54 + 73x$	$[1, -1, 0, 1]$	x	0.3771138063	0.5892005162
24	$9 + 73x^2 - 63x$	$[1, -1, 0, 1]$	x	0.2573152352	0.4528728826
25	$-63x^2 - 64x + 73$	$[1, -1, 0, 1]$	x	0.1755733393	0.4412890424
26	$-64x^2 - 63 + 136x$	$[1, -1, 0, 1]$	x	0.4157992813	0.5971044934
27	$-64 + 136x^2 + x$	$[1, -1, 0, 1]$	x	0.2837114104	0.3465555740
28	$x^2 - 200x + 136$	$[1, -1, 0, 1]$	x	0.4186509161	0.6122455660
29	$-200x^2 + 135x + 1$	$[1, -1, 0, 1]$	x	0.2856571602	0.4158168452
30	$-200 + 135x^2 + 201x$	$[1, -1, 0, 1]$	x	0.1968658138	0.4805843357
31	$201x^2 - 335x + 135$	$[1, -1, 0, 1]$	x	0.3731306065	0.5680529049
32	$-335x^2 - 66x + 201$	$[1, -1, 0, 1]$	x	0.2545973873	0.3561346140
33	$-335 - 66x^2 + 536x$	$[1, -1, 0, 1]$	x	0.4447203229	0.6251820765
34	$536x^2 - 269x - 66$	$[1, -1, 0, 1]$	x	0.3034450412	0.3844743394
35	$-269x^2 - 602x + 536$	$[1, -1, 0, 1]$	x	0.2611779546	0.5203761965
36	$-602x^2 - 269 + 805x$	$[1, -1, 0, 1]$	x	0.3186605953	0.5324524610
37	$805x^2 + 333x - 602$	$[1, -1, 0, 1]$	x	0.2174309842	0.3762343680
38	$333x^2 - 1407x + 805$	$[1, -1, 0, 1]$	x	0.4532219492	0.6269681448
39	$-1407x^2 + 472x + 333$	$[1, -1, 0, 1]$	x	0.3092459373	0.3613698338
40	$472x^2 - 1407 + 1740x$	$[1, -1, 0, 1]$	x	0.3227062472	0.5574594802

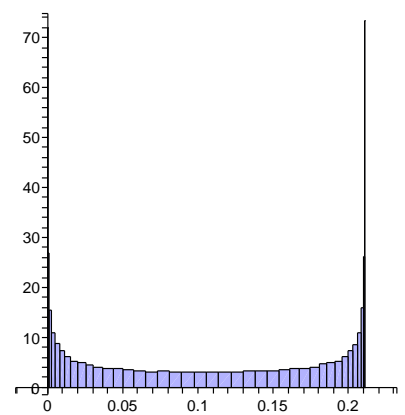Period $[1, -1, 0, 1]$, norm L_∞

Period $[1, -1, 0, 1]$, norm L_2

Period $[1, -1, 0, 1]$, norm c_2

Period $[1, -1, 0, 1]$, norm c_1

Period $[1, -1, 0, 1]$, norm c_0

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Number: $\xi = 0.6823...$ Equation: $x^3 + x - 1 = 0$. Compare period $[1, -1, 0, 1]$ with "all".
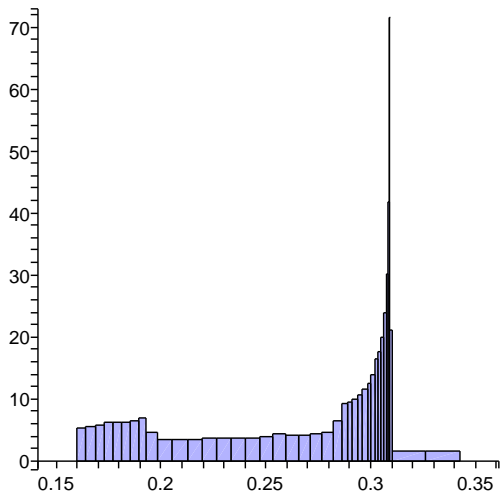
1	$-x + 1$	*no*	*YES*	*WRONG HEIGHT*
2	$-x^2 + x$	*no*	*YES*	*WRONG HEIGHT*
3	$x^2 + x - 1$	*YES*	*YES*	
4	$x^2 - 2x + 1$	*no*	*YES*	*WRONG HEIGHT*
5	$-2x^2 + 1$	*YES*	*YES*	
6	$3x - 2$	*no*	*YES*	*WRONG HEIGHT*
7	$3x^2 - 2x$	*no*	*YES*	*WRONG HEIGHT*
8	$-2x^2 - 3x + 3$	*YES*	*YES*	
9	$-3x^2 + 5x - 2$	*no*	*YES*	*WRONG HEIGHT*
10	$5x^2 + x - 3$	*YES*	*YES*	
11	$x^2 - 8x + 5$	*no*	*YES*	*WRONG HEIGHT*
12	$-8x^2 + 4x + 1$	*YES*	*YES*	
13	$4x^2 + 9x - 8$	*YES*	*YES*	
14	$9x^2 - 12x + 4$	*no*	*YES*	*WRONG HEIGHT*
15	$-12x^2 - 5x + 9$	*YES*	*YES*	
16	$-5x^2 + 21x - 12$	*no*	*YES*	*WRONG HEIGHT*
17	$21x^2 - 7x - 5$	*YES*	*YES*	
18	$-7x^2 - 26x + 21$	*YES*	*YES*	
19	$-26x^2 + 28x - 7$	*no*	*YES*	*WRONG HEIGHT*
20	$28x^2 + 19x - 26$	*YES*	*YES*	
21	$19x^2 - 54x + 28$	*no*	*YES*	*WRONG HEIGHT*
22	$-54x^2 + 9x + 19$	*YES*	*YES*	
23	$9x^2 + 73x - 54$	*no*	*YES*	*WRONG HEIGHT*
24	$73x^2 - 63x + 9$	*no*	*YES*	*WRONG HEIGHT*
25	$-63x^2 - 64x + 73$	*YES*	*YES*	
26	$-64x^2 + 136x - 63$	*no*	*YES*	*WRONG HEIGHT*
27	$136x^2 + x - 64$	*YES*	*YES*	
28	$x^2 - 200x + 136$	*no*	*YES*	*WRONG HEIGHT*
29	$-200x^2 + 135x + 1$	*YES*	*YES*	
30	$135x^2 + 201x - 200$	*YES*	*YES*	
31	$201x^2 - 335x + 135$	*no*	*YES*	*WRONG HEIGHT*
32	$-335x^2 - 66x + 201$	*YES*	*YES*	
33	$-66x^2 + 536x - 335$	*no*	*YES*	*WRONG HEIGHT*
34	$536x^2 - 269x - 66$	*YES*	*YES*	
35	$-269x^2 - 602x + 536$	*YES*	*YES*	
36	$-602x^2 + 805x - 269$	*no*	*YES*	*WRONG HEIGHT*
37	$805x^2 + 333x - 602$	*YES*	*YES*	
38	$333x^2 - 1407x + 805$	*no*	*YES*	*WRONG HEIGHT*
39	$-1407x^2 + 472x + 333$	*YES*	*YES*	
40	$472x^2 + 1740x - 1407$	*YES*	*YES*	

41	$1740\,x^2 - 1879\,x + 472$	*no*	*YES*	*WRONG HEIGHT*
42	$-1879\,x^2 - 1268\,x + 1740$	*YES*	*YES*	
43	$-1268\,x^2 + 3619\,x - 1879$	*no*	*YES*	*WRONG HEIGHT*
44	$3619\,x^2 - 611\,x - 1268$	*YES*	*YES*	
45	$-611\,x^2 - 4887\,x + 3619$	*no*	*YES*	*WRONG HEIGHT*
46	$-4887\,x^2 + 4230\,x - 611$	*no*	*YES*	*WRONG HEIGHT*
47	$4230\,x^2 + 4276\,x - 4887$	*YES*	*YES*	
48	$4276\,x^2 - 9117\,x + 4230$	*no*	*YES*	*WRONG HEIGHT*
49	$-9117\,x^2 - 46\,x + 4276$	*YES*	*YES*	
50	$-46\,x^2 + 13393\,x - 9117$	*no*	*YES*	*WRONG HEIGHT*
51	$13393\,x^2 - 9071\,x - 46$	*YES*	*YES*	
52	$-9071\,x^2 - 13439\,x + 13393$	*YES*	*YES*	
53	$-13439\,x^2 + 22464\,x - 9071$	*no*	*YES*	*WRONG HEIGHT*
54	$22464\,x^2 + 4368\,x - 13439$	*YES*	*YES*	
55	$4368\,x^2 - 35903\,x + 22464$	*no*	*YES*	*WRONG HEIGHT*
56	$-35903\,x^2 + 18096\,x + 4368$	*YES*	*YES*	
57	$18096\,x^2 + 40271\,x - 35903$	*YES*	*YES*	
58	$40271\,x^2 - 53999\,x + 18096$	*no*	*YES*	*WRONG HEIGHT*
59	$-53999\,x^2 - 22175\,x + 40271$	*YES*	*YES*	
60	$-22175\,x^2 + 94270\,x - 53999$	*no*	*YES*	*WRONG HEIGHT*
61	$94270\,x^2 - 31824\,x - 22175$	*YES*	*YES*	
62	$-31824\,x^2 - 116445\,x + 94270$	*YES*	*YES*	
63	$-116445\,x^2 + 126094\,x - 31824$	*no*	*YES*	*WRONG HEIGHT*
64	$126094\,x^2 + 84621\,x - 116445$	*YES*	*YES*	
65	$84621\,x^2 - 242539\,x + 126094$	*no*	*YES*	*WRONG HEIGHT*
66	$-242539\,x^2 + 41473\,x + 84621$	*YES*	*YES*	
67	$41473\,x^2 + 327160\,x - 242539$	*no*	*YES*	*WRONG HEIGHT*
68	$327160\,x^2 - 284012\,x + 41473$	*no*	*YES*	*WRONG HEIGHT*
69	$-284012\,x^2 - 285687\,x + 327160$	*YES*	*YES*	
70	$-285687\,x^2 + 611172\,x - 284012$	*no*	*YES*	*WRONG HEIGHT*
71	$611172\,x^2 + 1675\,x - 285687$	*YES*	*YES*	
72	$1675\,x^2 - 896859\,x + 611172$	*no*	*YES*	*WRONG HEIGHT*
73	$-896859\,x^2 + 609497\,x + 1675$	*YES*	*YES*	
74	$609497\,x^2 + 898534\,x - 896859$	*YES*	*YES*	
75	$898534\,x^2 - 1506356\,x + 609497$	*no*	*YES*	*WRONG HEIGHT*
76	$-1506356\,x^2 - 289037\,x + 898534$	*YES*	*YES*	
77	$-289037\,x^2 + 2404890\,x - 1506356$	*no*	*YES*	*WRONG HEIGHT*
78	$2404890\,x^2 - 1217319\,x - 289037$	*YES*	*YES*	
79	$-1217319\,x^2 - 2693927\,x + 2404890$	*YES*	*YES*	
80	$-2693927\,x^2 + 3622209\,x - 1217319$	*no*	*YES*	*WRONG HEIGHT*

81	$3622209\,x^2 + 1476608\,x - 2693927$	*YES*	*YES*	
82	$1476608\,x^2 - 6316136\,x + 3622209$	*no*	*YES*	*WRONG HEIGHT*
83	$-6316136\,x^2 + 2145601\,x + 1476608$	*YES*	*YES*	
84	$2145601\,x^2 + 7792744\,x - 6316136$	*YES*	*YES*	
85	$7792744\,x^2 - 8461737\,x + 2145601$	*no*	*YES*	*WRONG HEIGHT*
86	$-8461737\,x^2 - 5647143\,x + 7792744$	*YES*	*YES*	
87	$-5647143\,x^2 + 16254481\,x - 8461737$	*no*	*YES*	*WRONG HEIGHT*
88	$16254481\,x^2 - 2814594\,x - 5647143$	*YES*	*YES*	
89	$-2814594\,x^2 - 21901624\,x + 16254481$	*no*	*YES*	*WRONG HEIGHT*
90	$-21901624\,x^2 + 19069075\,x - 2814594$	*no*	*YES*	*WRONG HEIGHT*
91	$19069075\,x^2 + 19087030\,x - 21901624$	*YES*	*YES*	
92	$19087030\,x^2 - 40970699\,x + 19069075$	*no*	*YES*	*WRONG HEIGHT*
93	$-40970699\,x^2 - 17955\,x + 19087030$	*YES*	*YES*	
94	$-17955\,x^2 + 60057729\,x - 40970699$	*no*	*YES*	*WRONG HEIGHT*
95	$60057729\,x^2 - 40952744\,x - 17955$	*YES*	*YES*	
96	$-40952744\,x^2 - 60075684\,x + 60057729$	*YES*	*YES*	
97	$-60075684\,x^2 + 101010473\,x - 40952744$	*no*	*YES*	*WRONG HEIGHT*
98	$101010473\,x^2 + 19122940\,x - 60075684$	*YES*	*YES*	
99	$19122940\,x^2 - 161086157\,x + 101010473$	*no*	*YES*	*WRONG HEIGHT*
100	$-161086157\,x^2 + 81887533\,x + 19122940$	*YES*	*YES*	
101	$81887533\,x^2 + 180209097\,x - 161086157$	*YES*	*YES*	
102	$180209097\,x^2 - 242973690\,x + 81887533$	*no*	*YES*	*WRONG HEIGHT*
103	$-242973690\,x^2 - 98321564\,x + 180209097$	*YES*	*YES*	
104	$-98321564\,x^2 + 423182787\,x - 242973690$	*no*	*YES*	*WRONG HEIGHT*
105	$423182787\,x^2 - 144652126\,x - 98321564$	*YES*	*YES*	
106	$-144652126\,x^2 - 521504351\,x + 423182787$	*YES*	*YES*	
107	$-521504351\,x^2 + 567834913\,x - 144652126$	*no*	*YES*	*WRONG HEIGHT*
108	$567834913\,x^2 + 376852225\,x - 521504351$	*YES*	*YES*	
109	$376852225\,x^2 - 1089339264\,x + 567834913$	*no*	*YES*	*WRONG HEIGHT*
110	$-1089339264\,x^2 + 190982688\,x + 376852225$	*YES*	*YES*	
111	$190982688\,x^2 + 1466191489\,x - 1089339264$	*no*	*YES*	*WRONG HEIGHT*
112	$1466191489\,x^2 - 1280321952\,x + 190982688$	*no*	*YES*	*WRONG HEIGHT*
113	$-1280321952\,x^2 - 1275208801\,x + 1466191489$	*YES*	*YES*	
114	$-1275208801\,x^2 + 2746513441\,x - 1280321952$	*no*	*YES*	*WRONG HEIGHT*
115	$2746513441\,x^2 - 5113151\,x - 1275208801$	*YES*	*YES*	
116	$-5113151\,x^2 - 4021722242\,x + 2746513441$	*no*	*YES*	*WRONG HEIGHT*
117	$-4021722242\,x^2 + 2751626592\,x - 5113151$	*no*	*YES*	*WRONG HEIGHT*
118	$2751626592\,x^2 + 4016609091\,x - 4021722242$	*YES*	*YES*	
119	$4016609091\,x^2 - 6773348834\,x + 2751626592$	*no*	*YES*	*WRONG HEIGHT*
120	$-6773348834\,x^2 - 1264982499\,x + 4016609091$	*YES*	*YES*	

121	$-1264982499\,x^2 + 10789957925\,x - 6773348834$	*no*	*YES*	*WRONG HEIGHT*
122	$10789957925\,x^2 - 5508366335\,x - 1264982499$	*YES*	*YES*	
123	$-5508366335\,x^2 - 12054940424\,x + 10789957925$	*YES*	*YES*	
124	$-12054940424\,x^2 + 16298324260\,x - 5508366335$	*no*	*YES*	*WRONG HEIGHT*
125	$16298324260\,x^2 + 6546574089\,x - 12054940424$	*YES*	*YES*	
126	$6546574089\,x^2 - 28353264684\,x + 16298324260$	*no*	*YES*	*WRONG HEIGHT*
127	$-28353264684\,x^2 + 9751750171\,x + 6546574089$	*YES*	*YES*	
128	$9751750171\,x^2 + 34899838773\,x - 28353264684$	*YES*	*YES*	
129	$34899838773\,x^2 - 38105014855\,x + 9751750171$	*no*	*YES*	*WRONG HEIGHT*
130	$-38105014855\,x^2 - 25148088602\,x + 34899838773$	*YES*	*YES*	
131	$-25148088602\,x^2 + 73004853628\,x - 38105014855$	*no*	*YES*	*WRONG HEIGHT*
132	$73004853628\,x^2 - 12956926253\,x - 25148088602$	*YES*	*YES*	
133	$-12956926253\,x^2 - 98152942230\,x + 73004853628$	*no*	*YES*	*WRONG HEIGHT*
134	$-98152942230\,x^2 + 85961779881\,x - 12956926253$	*no*	*YES*	*WRONG HEIGHT*
135	$85961779881\,x^2 + 85196015977\,x - 98152942230$	*YES*	*YES*	
136	$85196015977\,x^2 - 184114722111\,x + 85961779881$	*no*	*YES*	*WRONG HEIGHT*
137	$-184114722111\,x^2 + 765763904\,x + 85196015977$	*YES*	*YES*	
138	$765763904\,x^2 + 269310738088\,x - 184114722111$	*no*	*YES*	*WRONG HEIGHT*
139	$269310738088\,x^2 - 184880486015\,x + 765763904$	*no*	*YES*	*WRONG HEIGHT*
140	$-184880486015\,x^2 - 268544974184\,x + 269310738088$	*YES*	*YES*	
141	$-268544974184\,x^2 + 454191224103\,x - 184880486015$	*no*	*YES*	*WRONG HEIGHT*
142	$454191224103\,x^2 + 83664488169\,x - 268544974184$	*YES*	*YES*	
143	$83664488169\,x^2 - 722736198287\,x + 454191224103$	*no*	*YES*	*WRONG HEIGHT*
144	$-722736198287\,x^2 + 370526735934\,x + 83664488169$	*YES*	*YES*	
145	$370526735934\,x^2 + 806400686456\,x - 722736198287$	*YES*	*YES*	
146	$806400686456\,x^2 - 1093262934221\,x + 370526735934$	*no*	*YES*	*WRONG HEIGHT*
147	$-1093262934221\,x^2 - 435873950522\,x + 806400686456$	*YES*	*YES*	
148	$-435873950522\,x^2 + 1899663620677\,x - 1093262934221$	*no*	*YES*	*WRONG HEIGHT*
149	$1899663620677\,x^2 - 657388983699\,x - 435873950522$	*YES*	*YES*	
150	$-657388983699\,x^2 - 2335537571199\,x + 1899663620677$	*YES*	*YES*	
151	$-2335537571199\,x^2 + 2557052604376\,x - 657388983699$	*no*	*YES*	*WRONG HEIGHT*
152	$2557052604376\,x^2 + 1678148587500\,x - 2335537571199$	*YES*	*YES*	
153	$1678148587500\,x^2 - 4892590175575\,x + 2557052604376$	*no*	*YES*	*WRONG HEIGHT*
154	$-4892590175575\,x^2 + 878904016876\,x + 1678148587500$	*YES*	*YES*	
155	$878904016876\,x^2 + 6570738763075\,x - 4892590175575$	*no*	*YES*	*WRONG HEIGHT*
156	$6570738763075\,x^2 - 5771494192451\,x + 878904016876$	*no*	*YES*	*WRONG HEIGHT*
157	$-5771494192451\,x^2 - 5691834746199\,x + 6570738763075$	*YES*	*YES*	
158	$-5691834746199\,x^2 + 12342232955526\,x - 5771494192451$	*no*	*YES*	*WRONG HEIGHT*
159	$12342232955526\,x^2 - 79659446252\,x - 5691834746199$	*YES*	*YES*	
160	$-79659446252\,x^2 - 18034067701725\,x + 12342232955526$	*no*	*YES*	*WRONG HEIGHT*

161	$-18034067701725\,x^2 + 12421892401778\,x - 79659446252$	no	YES	WRONG HEIGHT
162	$12421892401778\,x^2 + 17954408255473\,x - 18034067701725$	YES	YES	
163	$17954408255473\,x^2 - 30455960103503\,x + 12421892401778$	no	YES	WRONG HEIGHT
164	$-30455960103503\,x^2 - 5532515853695\,x + 17954408255473$	YES	YES	
165	$-5532515853695\,x^2 + 48410368358976\,x - 30455960103503$	no	YES	WRONG HEIGHT
166	$48410368358976\,x^2 - 24923444249808\,x - 5532515853695$	YES	YES	
167	$-24923444249808\,x^2 - 53942884212671\,x + 48410368358976$	YES	YES	
168	$-53942884212671\,x^2 + 73333812608784\,x - 24923444249808$	no	YES	WRONG HEIGHT
169	$73333812608784\,x^2 + 29019439962863\,x - 53942884212671$	YES	YES	
170	$29019439962863\,x^2 - 127276696821455\,x + 73333812608784$	no	YES	WRONG HEIGHT
171	$-127276696821455\,x^2 + 44314372645921\,x + 29019439962863$	YES	YES	
172	$44314372645921\,x^2 + 156296136784318\,x - 127276696821455$	YES	YES	
173	$156296136784318\,x^2 - 171591069467376\,x + 44314372645921$	no	YES	WRONG HEIGHT
174	$-171591069467376\,x^2 - 111981764138397\,x + 156296136784318$	YES	YES	
175	$-111981764138397\,x^2 + 327887206251694\,x - 171591069467376$	no	YES	WRONG HEIGHT
176	$327887206251694\,x^2 - 59609305328979\,x - 111981764138397$	YES	YES	
177	$-59609305328979\,x^2 - 439868970390091\,x + 327887206251694$	no	YES	WRONG HEIGHT
178	$-439868970390091\,x^2 + 387496511580673\,x - 59609305328979$	no	YES	WRONG HEIGHT
179	$387496511580673\,x^2 + 380259665061112\,x - 439868970390091$	YES	YES	
180	$380259665061112\,x^2 - 827365481970764\,x + 387496511580673$	no	YES	WRONG HEIGHT
181	$-827365481970764\,x^2 + 7236846519561\,x + 380259665061112$	YES	YES	
182	$7236846519561\,x^2 + 1207625147031876\,x - 827365481970764$	no	YES	WRONG HEIGHT
183	$1207625147031876\,x^2 - 834602328490325\,x + 7236846519561$	no	YES	WRONG HEIGHT
184	$-834602328490325\,x^2 - 1200388300512315\,x + 1207625147031876$	YES	YES	
185	$-1200388300512315\,x^2 + 2042227475522201\,x - 834602328490325$	no	YES	WRONG HEIGHT
186	$2042227475522201\,x^2 + 365785972021990\,x - 1200388300512315$	YES	YES	
187	$365785972021990\,x^2 - 3242615776034516\,x + 2042227475522201$	no	YES	WRONG HEIGHT
188	$-3242615776034516\,x^2 + 1676441503500211\,x + 365785972021990$	YES	YES	
189	$1676441503500211\,x^2 + 3608401748056506\,x - 3242615776034516$	YES	YES	
190	$3608401748056506\,x^2 - 4919057279534727\,x + 1676441503500211$	no	YES	WRONG HEIGHT
191	$-4919057279534727\,x^2 - 1931960244556295\,x + 3608401748056506$	YES	YES	
192	$-1931960244556295\,x^2 + 8527459027591233\,x - 4919057279534727$	no	YES	WRONG HEIGHT
193	$8527459027591233\,x^2 - 2987097034978432\,x - 1931960244556295$	YES	YES	
194	$-2987097034978432\,x^2 - 10459419272147528\,x + 8527459027591233$	YES	YES	
195	$-10459419272147528\,x^2 + 11514556062569665\,x - 2987097034978432$	no	YES	WRONG HEIGHT
196	$11514556062569665\,x^2 + 7472322237169096\,x - 10459419272147528$	YES	YES	
197	$7472322237169096\,x^2 - 21973975334717193\,x + 11514556062569665$	no	YES	WRONG HEIGHT
198	$-21973975334717193\,x^2 + 4042233825400569\,x + 7472322237169096$	YES	YES	
199	$4042233825400569\,x^2 + 29446297571886289\,x - 21973975334717193$	no	YES	WRONG HEIGHT
200	$29446297571886289\,x^2 - 26016209160117762\,x + 4042233825400569$	no	YES	WRONG HEIGHT

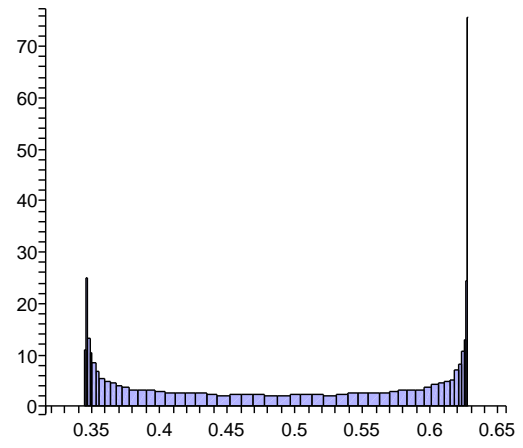"All" polynomials, norm L_∞
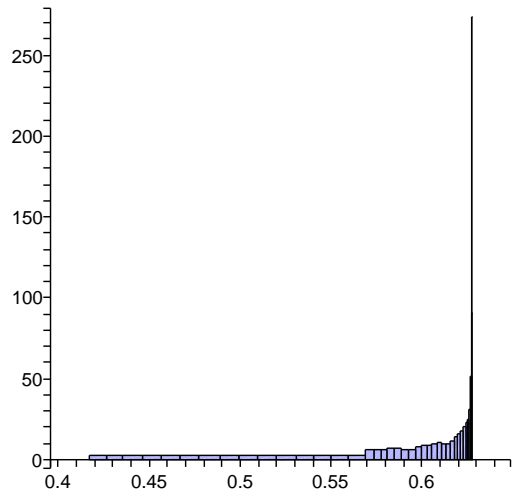

Period $[1, -1, 0, 1]$, norm L_∞

Period $[1, -1, 0, 1]$, norm L_∞, no-YES

"All" polynomials, norm L_2

Period $[1, -1, 0, 1]$, norm L_2

Period $[1, -1, 0, 1]$, norm L_2, no-YES

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Number: $\xi = 0.6823...$ Equation: $x^3 + x - 1 = 0$. Period $[1, -1, 0, 1]$. Sorted minimums with norm L_∞.

1	0.1597462024	9774	41	0.1610695407	2934	81	0.1624510413	4413	121	0.1637872901	6486
2	0.1597784436	1147	42	0.1610924367	1059	82	0.1624792525	6134	122	0.1637964504	7767
3	0.1597952936	8053	43	0.1611186160	1213	83	0.1625074578	7855	123	0.1638243829	9488
4	0.1598071814	2868	44	0.1611209200	2780	84	0.1625356575	9576	124	0.1638363216	4765
5	0.1598359138	4589	45	0.1611493977	4501	85	0.1625631368	9884	125	0.1638853523	3044
6	0.1598443842	6332	46	0.1611778697	6222	86	0.1626121900	8163	126	0.1639343820	1323
7	0.1598646408	6310	47	0.1612063361	7943	87	0.1626612423	6442	127	0.1640052532	861
8	0.1598933622	8031	48	0.1612347970	9664	88	0.1627102939	4721	128	0.1640331416	2582
9	0.1598934743	4611	49	0.1614190977	1037	89	0.1627182625	949	129	0.1640610240	4303
10	0.1599220781	9752	50	0.1614366273	9840	90	0.1627464190	2670	130	0.1640889006	6024
11	0.1599425638	2890	51	0.1614475164	2758	91	0.1627593446	3000	131	0.1641167712	7745
12	0.1599916528	1169	52	0.1614759294	4479	92	0.1627745697	4391	132	0.1641446359	9466
13	0.1601080355	1125	53	0.1614856976	8119	93	0.1628027147	6112	133	0.1642520908	9950
14	0.1601367103	2846	54	0.1615043368	6200	94	0.1628083946	1279	134	0.1643011133	8229
15	0.1601653796	4567	55	0.1615327386	7921	95	0.1628308538	7833	135	0.1643250666	839
16	0.1601940433	6288	56	0.1615347672	6398	96	0.1628589872	9554	136	0.1643501349	6508
17	0.1602227016	8009	57	0.1615611347	9642	97	0.1630411622	927	137	0.1643528870	2560
18	0.1602513543	9730	58	0.1615838361	4677	98	0.1630692522	2648	138	0.1643807014	4281
19	0.1603097555	9796	59	0.1616329043	2956	99	0.1630973365	4369	139	0.1643991555	4787
20	0.1603588403	8075	60	0.1616819719	1235	100	0.1631254149	6090	140	0.1644085099	6002
21	0.1604079246	6354	61	0.1617450152	1015	101	0.1631262370	9906	141	0.1644363125	7723
22	0.1604369012	1103	62	0.1617733689	2736	102	0.1631534875	7811	142	0.1644481752	3066
23	0.1604570082	4633	63	0.1618017169	4457	103	0.1631752806	8185	143	0.1644641091	9444
24	0.1604655126	2824	64	0.1618300592	6178	104	0.1631815543	9532	144	0.1644971938	1345
25	0.1604941184	4545	65	0.1618583959	7899	105	0.1632243234	6464	145	0.1646440977	817
26	0.1605060913	2912	66	0.1618867269	9620	106	0.1632733653	4743	146	0.1646718498	2538
27	0.1605227186	6266	67	0.1619999311	9862	107	0.1633224063	3022	147	0.1646995958	4259
28	0.1605513133	7987	68	0.1620489931	8141	108	0.1633632968	905	148	0.1647273359	5980
29	0.1605551738	1191	69	0.1620701846	993	109	0.1633714464	1301	149	0.1647550700	7701
30	0.1605799024	9708	70	0.1620980544	6420	110	0.1633913200	2626	150	0.1647827982	9422
31	0.1607650364	1081	71	0.1620984730	2714	111	0.1634193373	4347	151	0.1648148294	9972
32	0.1607935839	2802	72	0.1621267556	4435	112	0.1634473488	6068	152	0.1648638404	8251
33	0.1608221258	4523	73	0.1621471150	4699	113	0.1634753544	7789	153	0.1649128505	6530
34	0.1608506622	6244	74	0.1621550325	6156	114	0.1635033542	9510	154	0.1649618595	4809
35	0.1608732329	9818	75	0.1621833037	7877	115	0.1636846619	883	155	0.1649623423	795
36	0.1608791929	7965	76	0.1621961748	2978	116	0.1636892241	9928	156	0.1649900256	2516
37	0.1609077181	9686	77	0.1622115692	9598	117	0.1637126178	2604	157	0.1650108674	3088
38	0.1609223108	8097	78	0.1622452339	1257	118	0.1637382576	8207	158	0.1650177030	4237
39	0.1609713881	6376	79	0.1623946018	971	119	0.1637405679	4325	159	0.1650453743	5958
40	0.1610204647	4655	80	0.1624228245	2692	120	0.1637685121	6046	160	0.1650598743	1367

161	0.1650730396	7679	201	0.1666001464	6596	241	0.1679256361	9202	281	0.1694128640	5650
162	0.1651006989	9400	202	0.1666236045	5848	242	0.1681006051	575	282	0.1694395278	7371
163	0.1652797962	773	203	0.1666491166	4875	243	0.1681275813	2296	283	0.1694579144	4985
164	0.1653074105	2494	204	0.1666509203	7569	244	0.1681545511	4017	284	0.1694661852	9092
165	0.1653350187	4215	205	0.1666782299	9290	245	0.1681815146	5738	285	0.1695068055	3264
166	0.1653626209	5936	206	0.1666980856	3154	246	0.1682084718	7459	286	0.1695556951	1543
167	0.1653902170	7657	207	0.1667470534	1433	247	0.1682354227	9180	287	0.1696387790	465
168	0.1654178071	9378	208	0.1668550572	663	248	0.1682370822	8383	288	0.1696653880	2186
169	0.1654264314	8273	209	0.1668823206	2384	249	0.1682860092	6662	289	0.1696919906	3907
170	0.1654754292	6552	210	0.1669095778	4105	250	0.1683349348	4941	290	0.1697185867	5628
171	0.1655244259	4831	211	0.1669368288	5826	251	0.1683838590	3220	291	0.1697451763	7349
172	0.1655734216	3110	212	0.1669640736	7547	252	0.1684099212	553	292	0.1697717595	9070
173	0.1655964551	751	213	0.1669913122	9268	253	0.1684327818	1499	293	0.1699213603	8449
174	0.1656224161	1389	214	0.1671133126	8339	254	0.1684368247	2274	294	0.1699438713	443
175	0.1656239999	2472	215	0.1671622698	6618	255	0.1684637218	3995	295	0.1699702370	6728
176	0.1656515387	4193	216	0.1671676784	641	256	0.1684906125	5716	296	0.1699704059	2164
177	0.1656790714	5914	217	0.1671948706	2362	257	0.1685174969	7437	297	0.1699969339	3885
178	0.1657065980	7635	218	0.1672112258	4897	258	0.1685443749	9158	298	0.1700191121	5007
179	0.1657341185	9356	219	0.1672220564	4083	259	0.1687184008	531	299	0.1700234555	5606
180	0.1659123149	729	220	0.1672492361	5804	260	0.1687452312	2252	300	0.1700499705	7327
181	0.1659397899	2450	221	0.1672601806	3176	261	0.1687720552	3973	301	0.1700679857	3286
182	0.1659672588	4171	222	0.1672764095	7525	262	0.1687986992	8405	302	0.1700764790	9048
183	0.1659888787	8295	223	0.1673035767	9246	263	0.1687988728	5694	303	0.1701168577	1565
184	0.1659947216	5892	224	0.1673091340	1455	264	0.1688256840	7415	304	0.1702481066	421
185	0.1660221783	7613	225	0.1674794796	619	265	0.1688476100	6684	305	0.1702745664	2142
186	0.1660378637	6574	226	0.1675066001	2340	266	0.1688524889	9136	306	0.1703010195	3863
187	0.1660496289	9334	227	0.1675337143	4061	267	0.1688965195	4963	307	0.1703274662	5584
188	0.1660868475	4853	228	0.1675608223	5782	268	0.1689454275	3242	308	0.1703539063	7305
189	0.1661358301	3132	229	0.1675879240	7503	269	0.1689943340	1521	309	0.1703803399	9026
190	0.1661848116	1411	230	0.1676150194	9224	270	0.1690260397	509	310	0.1704823895	8471
191	0.1662273713	707	231	0.1676752841	8361	271	0.1690527966	2230	311	0.1705312481	6750
192	0.1662547761	2428	232	0.1677242266	6640	272	0.1690795472	3951	312	0.1705514809	399
193	0.1662821748	4149	233	0.1677731677	4919	273	0.1691062913	5672	313	0.1705778655	2120
194	0.1663095674	5870	234	0.1677904565	597	274	0.1691330290	7393	314	0.1705801051	5029
195	0.1663369538	7591	235	0.1678175050	2318	275	0.1691597603	9114	315	0.1706042434	3841
196	0.1663643341	9312	236	0.1678221075	3198	276	0.1693328338	487	316	0.1706289605	3308
197	0.1665416201	685	237	0.1678445472	4039	277	0.1693595169	2208	317	0.1706306148	5562
198	0.1665511749	8317	238	0.1678710460	1477	278	0.1693601277	8427	318	0.1706569797	7283
199	0.1665689544	2406	239	0.1678715832	5760	279	0.1693861937	3929	319	0.1706778142	1587
200	0.1665962825	4127	240	0.1678986128	7481	280	0.1694090218	6706	320	0.1706833379	9004

321	0.1708539902	377	361	0.1721852457	8894	401	0.1735625990	1900	441	0.1749624055	8647
322	0.1708802992	2098	362	0.1722129825	6816	402	0.1735882056	3621	442	0.1749960563	69
323	0.1709066016	3819	363	0.1722617812	5095	403	0.1736138054	5342	443	0.1750110962	6926
324	0.1709328974	5540	364	0.1723105781	3374	404	0.1736393983	7063	444	0.1750212714	1790
325	0.1709591865	7261	365	0.1723534200	267	405	0.1736649843	8784	445	0.1750464795	3511
326	0.1709854691	8982	366	0.1723593733	1653	406	0.1738306248	157	446	0.1750597848	5205
327	0.1710432078	8493	367	0.1723793461	1988	407	0.1738438754	8603	447	0.1750716806	5232
328	0.1710920477	6772	368	0.1724052654	3709	408	0.1738561593	1878	448	0.1750968747	6953
329	0.1711408859	5051	369	0.1724311779	5430	409	0.1738816869	3599	449	0.1751084713	3484
330	0.1711556303	355	370	0.1724570837	7151	410	0.1738926119	6882	450	0.1751220617	8674
331	0.1711818634	2076	371	0.1724829828	8872	411	0.1739072076	5320	451	0.1751571558	1763
332	0.1711897225	3330	372	0.1726506548	245	412	0.1739327214	7041	452	0.1752058382	42
333	0.1712080899	3797	373	0.1726765032	1966	413	0.1739413465	5161	453	0.1752851134	47
334	0.1712343097	5518	374	0.1727023449	3687	414	0.1739582283	8762	454	0.1753102478	1768
335	0.1712385573	1609	375	0.1727243230	8559	415	0.1739900792	3440	455	0.1753353752	3489
336	0.1712605229	7239	376	0.1727281798	5408	416	0.1740388098	1719	456	0.1753604956	5210
337	0.1712867295	8960	377	0.1727540078	7129	417	0.1741233554	135	457	0.1753856089	6931
338	0.1714563974	333	378	0.1727731028	6838	418	0.1741488106	1856	458	0.1754107151	8652
339	0.1714825542	2054	379	0.1727798291	8850	419	0.1741742588	3577	459	0.1755212686	8669
340	0.1715087044	3775	380	0.1728218808	5117	420	0.1741997001	5298	460	0.1755699354	6948
341	0.1715348480	5496	381	0.1728706569	3396	421	0.1742251345	7019	461	0.1755733393	25
342	0.1715609849	7217	382	0.1729194312	1675	422	0.1742505619	8740	462	0.1755982959	1746
343	0.1715871151	8938	383	0.1729469966	223	423	0.1744032720	8625	463	0.1756186000	5227
344	0.1716038078	8515	384	0.1729727671	1944	424	0.1744151734	113	464	0.1756233422	3467
345	0.1716526283	6794	385	0.1729985307	3665	425	0.1744405489	1834	465	0.1756483815	5188
346	0.1717014471	5073	386	0.1730242876	5386	426	0.1744519859	6904	466	0.1756672625	3506
347	0.1717502642	3352	387	0.1730500376	7107	427	0.1744659174	3555	467	0.1756734137	6909
348	0.1717562873	311	388	0.1730757808	8828	428	0.1744912790	5276	468	0.1756984388	8630
349	0.1717823676	2032	389	0.1732424415	201	429	0.1745006978	5183	469	0.1757159229	1785
350	0.1717990795	1631	390	0.1732681336	1922	430	0.1745166336	6997	470	0.1757645812	64
351	0.1718084412	3753	391	0.1732842233	8581	431	0.1745419813	8718	471	0.1758854117	1724
352	0.1718345081	5474	392	0.1732938190	3643	432	0.1745494077	3462	472	0.1759103767	3445
353	0.1718605683	7195	393	0.1733194974	5364	433	0.1745981156	1741	473	0.1759353346	5166
354	0.1718866218	8916	394	0.1733329818	6860	434	0.1746479810	20	474	0.1759602854	6887
355	0.1720552962	289	395	0.1733451690	7085	435	0.1747060750	91	475	0.1759852290	8608
356	0.1720812996	2010	396	0.1733708338	8806	436	0.1747313705	1812	476	0.1760798538	8691
357	0.1721072962	3731	397	0.1733817384	5139	437	0.1747566590	3533	477	0.1761284960	6970
358	0.1721332861	5452	398	0.1734304931	3418	438	0.1747819405	5254	478	0.1761715916	1702
359	0.1721592692	7173	399	0.1734792459	1697	439	0.1748072150	6975	479	0.1761771360	5249
360	0.1721641820	8537	400	0.1735369855	179	440	0.1748324825	8696	480	0.1761964749	3423

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$13 - 16$	$\{22, 1677, 1699\}$
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$29, 30$	$\{22, 1633\}$
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$85 - 89$	$\{22, 1413, 1435\}$
90	$\{22, 1413\}$
$91 - 94$	$\{22, 1391, 1413\}$
$95, 96$	$\{22, 1391\}$
$97 - 99$	$\{22, 1369, 1391\}$

Number: $\xi = 0.6823...$ Equation: $x^3 + x - 1 = 0$. Period $[1, -1, 0, 1]$. Sorted minimums with norm L_2.

1	0.3458584107	9248	41	0.3458694752	5872	81	0.3458994172	2496	121	0.3459572066	9468
2	0.3458584202	621	42	0.3458695920	3997	82	0.3458996414	7373	122	0.3459575541	401
3	0.3458584624	7527	43	0.3458700449	4151	83	0.3459005050	775	123	0.3459588900	7747
4	0.3458584748	2342	44	0.3458701647	5718	84	0.3459007321	9094	124	0.3459592405	2122
5	0.3458585283	5806	45	0.3458706289	2430	85	0.3459078985	9402	125	0.3459605876	6026
6	0.3458585437	4063	46	0.3458707516	7439	86	0.3459081447	467	126	0.3459609411	3843
7	0.3458586084	4085	47	0.3458712271	709	87	0.3459090925	7681	127	0.3459622995	4305
8	0.3458586268	5784	48	0.3458713528	9160	88	0.3459093417	2188	128	0.3459626559	5564
9	0.3458587028	2364	49	0.3458754482	9336	89	0.3459103008	5960	129	0.3459640256	2584
10	0.3458587241	7505	50	0.3458755929	533	90	0.3459105529	3909	130	0.3459643849	7285
11	0.3458588113	643	51	0.3458761527	7615	91	0.3459115233	4239	131	0.3459657658	863
12	0.3458588356	9226	52	0.3458763004	2254	92	0.3459117783	5630	132	0.3459661281	9006
13	0.3458598595	9270	53	0.3458768714	5894	93	0.3459127600	2518	133	0.3459773878	9490
14	0.3458599028	599	54	0.3458770221	3975	94	0.3459130179	7351	134	0.3459777691	379
15	0.3458600744	7549	55	0.3458776044	4173	95	0.3459140109	797	135	0.3459792343	7769
16	0.3458601207	2320	56	0.3458777580	5696	96	0.3459142718	9072	136	0.3459796186	2100
17	0.3458603035	5828	57	0.3458783516	2452	97	0.3459224617	9424	137	0.3459810950	6048
18	0.3458603528	4041	58	0.3458785081	7417	98	0.3459227416	445	138	0.3459814823	3821
19	0.3458605469	4107	59	0.3458791129	731	99	0.3459238189	7703	139	0.3459829700	4327
20	0.3458605991	5762	60	0.3458792724	9138	100	0.3459241018	2166	140	0.3459833601	5542
21	0.3458608044	2386	61	0.3458843916	9358	101	0.3459251903	5982	141	0.3459848591	2606
22	0.3458608596	7483	62	0.3458845701	511	102	0.3459254762	3887	142	0.3459852522	7263
23	0.3458610762	665	63	0.3458852593	7637	103	0.3459265759	4261	143	0.3459867625	885
24	0.3458611343	9204	64	0.3458854408	2232	104	0.3459268647	5608	144	0.3459871585	8984
25	0.3458631820	9292	65	0.3458861412	5916	105	0.3459279758	2540	145	0.3459994412	9512
26	0.3458632592	577	66	0.3458863257	3953	106	0.3459282675	7329	146	0.3459998563	357
27	0.3458635602	7571	67	0.3458870374	4195	107	0.3459293898	819	147	0.3460014508	7791
28	0.3458636403	2298	68	0.3458872248	5674	108	0.3459296845	9050	148	0.3460018688	2078
29	0.3458639525	5850	69	0.3458879477	2474	109	0.3459388978	9446	149	0.3460034746	6070
30	0.3458640355	4019	70	0.3458881381	7395	110	0.3459392115	423	150	0.3460038956	3799
31	0.3458643591	4129	71	0.3458888723	753	111	0.3459404181	7725	151	0.3460055126	4349
32	0.3458644450	5740	72	0.3458890656	9116	112	0.3459407348	2144	152	0.3460059365	5520
33	0.3458647798	2408	73	0.3458952084	9380	113	0.3459419526	6004	153	0.3460075648	2628
34	0.3458648688	7461	74	0.3458954208	489	114	0.3459422723	3865	154	0.3460079917	7241
35	0.3458652148	687	75	0.3458962393	7659	115	0.3459435014	4283	155	0.3460096312	907
36	0.3458653067	9182	76	0.3458964546	2210	116	0.3459438240	5586	156	0.3460100610	8962
37	0.3458683783	9314	77	0.3458972844	5938	117	0.3459450644	2562	157	0.3460233665	9534
38	0.3458684892	555	78	0.3458975027	3931	118	0.3459453899	7307	158	0.3460238154	335
39	0.3458689196	7593	79	0.3458983437	4217	119	0.3459466415	841	159	0.3460255391	7813
40	0.3458690335	2276	80	0.3458985649	5652	120	0.3459469700	9028	160	0.3460259909	2056

161	0.3460277259	6092	201	0.3461171017	2716	241	0.3462432263	9688	281	0.3463731068	6312
162	0.3460281807	3777	202	0.3461176636	7153	242	0.3462439114	181	282	0.3463738989	3557
163	0.3460299270	4371	203	0.3461198200	995	243	0.3462465393	7967	283	0.3463769362	4591
164	0.3460303847	5498	204	0.3461203849	8874	244	0.3462472273	1902	284	0.3463777312	5278
165	0.3460321422	2650	205	0.3461377797	9622	245	0.3462498664	6246	285	0.3463807797	2870
166	0.3460326028	7219	206	0.3461383636	247	246	0.3462505574	3623	286	0.3463815776	6999
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