SEVEN-POINT LAGRANGIAN INTERPOLATION COEFFICIENTS Table 25.1

$$A_k^7(p) = (-1)^{k+3} \frac{p(p^2-1)(p^2-4)(p^2-9)}{(3+k)!(3-k)!(p-k)}$$

p	A_{-3}	A_{-2}	A_{-1}	A_0	A_1	A_2	A_3	
0.0	0.00000 00000	0.00000 00000	0.00000 00000	1.00000 00000	0.00000 00000	0.00000 00000	0.00000 00000	0.0
0.1	-0.00159 10125	0.01409 18250	-0.06725 64375	0.98642 77500	0.08220 23125	-0.01557 51750	0.00170 07375	0.1
0.2	-0.00295 68000	0.02580 48000	-0.11827 20000	0.94617 60000	0.17740 80000	-0.03153 92000	0.00337 92000	0.2
0.3	-0.00400 28625	0.03445 94250	-0.15241 66875	0.88062 97500	0.28305 95625	-0.04662 15750	0.00489 23875	0.3
0.4	-0.00465 92000	0.03960 32000	-0.16972 80000	0.79206 40000	0.39603 20000	-0.05940 48000	0.00609 28000	0.4
0.5	-0.00488 28125	0.04101 56250	-0.17089 84375	0.68359 37500	0.51269 53125	-0.06835 93750	0.00683 59375	0.5
0.6	-0.00465 92000	0.03870 72000	-0.15724 80000	0.55910 40000	0.62899 20000	-0.07188 48000	0.00698 88000	0.6
0.7	-0.00400 28625	0.03291 24250	-0.13068 16875	0.42315 97500	0.74052 95625	-0.06835 65750	0.00643 93875	0.7
0.8	-0.00295 68000	0.02407 68000	-0.09363 20000	0.28089 60000	0.84268 80000	-0.05617 92000	0.00510 72000	0.8
0.9	-0.00159 10125	0.01283 78250	-0.04898 64375	0.13788 77500	0.93074 23125	-0.03384 51750	0.00295 47375	0.9
1.0	0.00000 00000	0.00000 00000	0.00000 00000	0.00000 00000	1.00000 00000	0.00000 00000	0.00000 00000	1.0
1.1	0.00170 07375	-0.01349 61750	0.04980 73125	-0.12678 22500	1.04595 35625	0.04648 68250	-0.00367 00125	1.1
1.2	0.00337 92000	-0.02661 12000	0.09676 80000	-0.23654 40000	1.06444 80000	0.10644 48000	-0.00788 48000	1.2
1.3	0.00489 23875	-0.03824 95750	0.13719 95625	-0.32365 02500	1.05186 33125	0.18031 94250	-0.01237 48625	1.3
1.4	0.00609 28000	-0.04730 88000	0.16755 20000	-0.38297 60000	1.00531 20000	0.26808 32000	-0.01675 52000	1.4
1.5	0.00683 59375	-0.05273 43750	0.18457 03125	-0.41015 62500	0.92285 15625	0.36914 06250	-0.02050 78125	1.5
1.6	0.00698 88000	-0.05358 08000	0.18547 20000	-0.40185 60000	0.80371 20000	0.48222 72000	-0.02296 32000	1.6
1.7	0.00643 93875	-0.04907 85750	0.16813 95625	-0.35606 02500	0.64853 83125	0.60530 24250	-0.02328 08625	1.7
1.8	0.00510 72000	-0.03870 72000	0.13132 80000	-0.27238 40000	0.45964 80000	0.73543 68000	-0.02042 88000	1.8
1.9	0.00295 47375	-0.02227 41750	0.07488 73125	-0.15240 22500	0.24130 35625	0.86869 28250	-0.01316 20125	1.9
2.0	0.00000 00000	0.00000 00000	0.00000 00000	0.00000 00000	0.00000 00000	1.00000 00000	0.00000 00000	2.0
2.1	-0.00367 00125	0.02739 08250	-0.09056 64375	0.17825 77500	-0.25523 26875	1.12302 38250	0.02079 67375	2.1
2.2	-0.00788 48000	0.05857 28000	-0.19219 20000	0.37273 60000	-0.51251 20000	1.23002 88000	0.05125 12000	2.2
2.3	-0.01237 48625	0.09151 64250	-0.29812 16875	0.57031 97500	-0.75677 04375	1.31173 54250	0.09369 53875	2.3
2.4	-0.01675 52000	0.12337 92000	-0.39916 80000	0.75398 40000	-0.96940 80000	1.35717 12000	0.15079 68000	2.4
2.5	-0.02050 78125	0.15039 06250	-0.48339 84375	0.90234 37500	-1.12792 96875	1.35351 56250	0.22558 59375	2.5
2.6	-0.02296 32000	0.16773 12000	-0.53580 80000	0.98918 40000	-1.20556 80000	1.28593 92000	0.32148 48000	2.6
2.7	-0.02328 08625	0.16940 54250	-0.53797 66875	0.98296 97500	-1.17089 04375	1.13743 64250	0.44233 63875	2.7
2.8	-0.02042 88000	0.14810 88000	-0.46771 20000	0.84633 60000	-0.98739 20000	0.88865 28000	0.59243 52000	2.8
2.9	-0.01316 20125	0.09508 88250	-0.29867 64375	0.53555 77500	-0.61307 26875	0.51770 58250	0.77655 87375	2.9
3.0	0.00000 00000	0.00000 00000	0.00000 00000	0.00000 00000	0.00000 00000	0.00000 00000	1.00000 00000	3.0
	A_3	A_2	A_1	A_0	A_{-1}	A_{-2}	A_{-3}	$-p$

EIGHT-POINT LAGRANGIAN INTERPOLATION COEFFICIENTS

$$A_k^8(p) = (-1)^{k+4} \frac{p(p^2-1)(p^2-4)(p^2-9)(p-4)}{(3+k)!(4-k)!(p-k)}$$

p	A_{-3}	A_{-2}	A_{-1}	A_0	A_1	A_2	A_3	A_4	
0.0	0.00000 00000	0.00000 00000	0.00000 00000	1.00000 00000	0.00000 00000	0.00000 00000	0.00000 00000	0.00000 00000	1.0
0.1	-0.00088 64213	0.00915 96863	-0.05246 00213	0.96176 70563	0.10686 30063	-0.03037 15913	0.00663 28763	-0.00070 45913	0.9
0.2	-0.00160 51200	0.01634 30400	-0.08988 67200	0.89886 72000	0.22471 68000	-0.05992 44800	0.01284 09600	-0.00135 16800	0.8
0.3	-0.00211 57988	0.02124 99787	-0.11278 83487	0.81458 25188	0.34910 67938	-0.08624 99137	0.01810 18337	-0.00188 70638	0.7
0.4	-0.00239 61600	0.02376 19200	-0.12220 41600	0.71285 76000	0.47523 84000	-0.10692 86400	0.02193 40800	-0.00226 30400	0.6
0.5	-0.00244 14063	0.02392 57812	-0.11962 89062	0.59814 45312	0.59814 45313	-0.11962 89062	0.02392 57812	-0.00244 14062	0.5
1.0	0.00000 00000	0.00000 00000	0.00000 00000	0.00000 00000	1.00000 00000	0.00000 00000	0.00000 00000	0.00000 00000	0.0
1.1	0.00070 45912	-0.00652 31512	0.02888 82412	-0.09191 71312	1.01108 84438	0.06740 58962	-0.01064 30362	0.00099 61462	-0.1
1.2	0.00135 16800	-0.01241 85600	0.05419 00800	-0.16558 08000	0.99348 48000	0.14902 27200	-0.02207 74400	0.00202 75200	-0.2
1.3	0.00188 70638	-0.01721 23088	0.07408 77638	-0.21846 39188	0.94667 69812	0.24343 12238	-0.03341 21288	0.00300 53238	-0.3
1.4	0.00226 30400	-0.02050 04800	0.08712 70400	-0.24893 44000	0.87127 04000	0.34850 81600	-0.04356 35200	0.00382 97600	-0.4
1.5	0.00244 14062	-0.02197 26562	0.09228 51562	-0.25634 76562	0.76904 29688	0.46142 57812	-0.05126 95312	0.00439 45312	-0.5
1.6	0.00239 61600	-0.02143 23200	0.08902 65600	-0.24111 36000	0.64296 96000	0.57867 26400	-0.05511 16800	0.00459 26400	-0.6
1.7	0.00211 57988	-0.01881 34538	0.07734 41988	-0.20473 46438	0.49721 27062	0.69609 77888	-0.05354 59838	0.00432 35888	-0.7
1.8	0.00160 51200	-0.01419 26400	0.05778 43200	-0.14981 12000	0.33707 52000	0.80898 04800	-0.04494 33600	0.00350 20800	-0.8
1.9	0.00088 64213	-0.00779 59613	0.03145 26712	-0.08001 11812	0.16891 24938	0.91212 74662	-0.02764 02263	0.00206 83163	-0.9
2.0	0.00000 00000	0.00000 00000	0.00000 00000	0.00000 00000	0.00000 00000	1.00000 00000	0.00000 00000	0.00000 00000	-1.0
2.1	-0.00099 61462	0.00867 37612	-0.03441 52462	0.08467 24312	-0.16164 73688	1.06687 26338	0.03951 38012	-0.00267 38662	-1.1
2.2	-0.00202 75200	0.01757 18400	-0.06918 91200	0.16773 12000	-0.30750 72000	1.10702 59200	0.09225 21600	-0.00585 72800	-1.2
2.3	-0.00300 53238	0.02592 96538	-0.10136 13738	0.24238 58938	-0.42883 65812	1.11497 51112	0.15928 21588	-0.00936 95388	-1.3
2.4	-0.00382 97600	0.03290 11200	-0.12773 37600	0.30159 36000	-0.51701 76000	1.08573 69600	0.24127 48800	-0.01292 54400	-1.4
2.5	-0.00439 45312	0.03759 76562	-0.14501 95312	0.33837 89062	-0.56396 48438	1.01513 67188	0.33837 89062	-0.01611 32812	-1.5
2.6	-0.00459 26400	0.03913 72800	-0.15002 62400	0.34621 44000	-0.56259 84000	0.90015 74400	0.45007 87200	-0.01837 05600	-1.6
2.7	-0.00432 35888	0.03670 45088	-0.13987 39388	0.31946 51688	-0.50738 58562	0.73933 36762	0.57503 73038	-0.01895 72738	-1.7
2.8	-0.00350 20800	0.02962 17600	-0.11225 08800	0.25390 08000	-0.39495 68000	0.53319 16800	0.71092 22400	-0.01692 67200	-1.8
2.9	-0.00206 83162	0.01743 29512	-0.06570 88162	0.14727 83812	-0.22479 33188	0.28473 82038	0.85421 46112	-0.01109 36962	-1.9
3.0	0.00000 00000	0.00000 00000	0.00000 00000	0.00000 00000	0.00000 00000	0.00000 00000	1.00000 00000	0.00000 00000	-2.0
3.1	0.00267 38662	-0.02238 70762	0.08354 20162	-0.18415 17562	0.27184 30688	-0.31138 38788	1.14174 08888	0.01812 28712	-2.1
3.2	0.00585 72800	-0.04888 57600	0.18157 56800	-0.39719 68000	0.57774 08000	-0.63551 48800	1.27102 97600	0.04539 39200	-2.2
3.3	0.00936 95388	-0.07796 16338	0.28827 67388	-0.62605 55438	0.89825 36062	-0.95353 07512	1.37732 21962	0.08432 58488	-2.3
3.4	0.01292 54400	-0.10723 32800	0.39481 34400	-0.85155 84000	1.20637 44000	-1.24084 22400	1.44764 92800	0.13787 13600	-2.4
3.5	0.01611 32812	-0.13330 07812	0.48876 95312	-1.04736 32812	1.46630 85938	-1.46630 85938	1.46630 85938	0.20947 26562	-2.5
3.6	0.01837 05600	-0.15155 71200	0.55351 29600	-1.17877 76000	1.63215 36000	-1.59134 97600	1.41453 31200	0.30311 42400	-2.6
3.7	0.01895 72738	-0.15598 17788	0.56750 81738	-1.20148 12688	1.64647 43312	-1.56899 31862	1.27013 73412	0.42337 91138	-2.7
3.8	0.01692 67200	-0.13891 58400	0.50356 99200	-1.06014 72000	1.43877 12000	-1.34285 31200	1.00713 98400	0.57550 84800	-2.8
3.9	0.01109 36962	-0.09081 78862	0.32805 64462	-0.68695 58062	0.92383 71188	-0.84604 03088	0.59536 16988	0.76546 50412	-2.9
4.0	0.00000 00000	0.00000 00000	0.00000 00000	0.00000 00000	0.00000 00000	0.00000 00000	0.00000 00000	1.00000 00000	-3.0
	A_4	A_3	A_2	A_1	A_0	A_{-1}	A_{-2}	A_{-3}	p