

Xvec	Yvec	True sums(xvec+yvec)	xvec-fl(x)	S^(hat)	fl(x)
-5129.05	-6836.21	-11965.26	0.05	-10150.203	-5129
-9666.86	1666.9	-7999.96	0.86		-9666
-8051.65	-8001.8	-16053.45	0.65		-8051
-9303.46	-3125.09	-12428.55	0.46		-9303
-7624.75	-592.145	-8216.895	0.75		-7624
-600.654	-9082.84	-9683.494	0.054		-600.6
-5492.8	-249.218	-5742.018	0.8		-5492
-2626.25	-8553.14	-11179.39	0.25		-2626
-5725.88	891.072	-4834.808	0.88		-5725
2948.48	-8895.47	-5946.99	0.48		2948
7818.56	1205.41	9023.97	0.56		7818
9590.33	-880.652	8709.678	0.33		9590
1551.1	-736.8	814.3	0.1		1551
5484.45	5751.37	11235.82	0.45		5484
-9097.66	-6069.44	-15167.1	0.66		-9097
-7286.84	4515.2	-2771.64	0.84		-7286
-6146.94	-4409.76	-10556.7	0.94		-6146
-4857.22	-3300.9	-8158.12	0.22		-4857
-9836.72	307.308	-9529.412	0.72		-9836
728.389	-6713.08	-5984.691	0.089		728.3
8635.73	6472.7	15108.43	0.73		8635
4705.26	-5549.51	-844.25	0.26		4705
-2282.19	-6079.33	-8361.52	0.19		-2282
8861.82	-5344.09	3517.73	0.82		8861
7189.1	6987.19	14176.29	0.1		7189
7470.34	983.261	8453.601	0.34		7470
5070.75	5327.42	10398.17	0.75		5070
-8738.74	7736.76	-1001.98	0.74		-8738
3815.73	5848.86	9664.59	0.73		3815
-9699.44	-2184.38	-11883.82	0.44		-9699
-9568.98	2752.97	-6816.01	0.98		-9568
-6119.15	8301.37	2182.22	0.15		-6119
3106.65	-2462.48	644.17	0.65		3106
-3576.98	2143.88	-1433.1	0.98		-3576
-6391.21	-7890.28	-14281.49	0.21		-6391
4663.6	-511.268	4152.332	0.6		4663

9305.11	295.266	9600.376	0.11	9305
-2183.43	-2854.83	-5038.26	0.43	-2183
2084.85	-579.708	1505.142	0.85	2084
-9959.95	3230.33	-6729.62	0.95	-9959
-3652	-4411.07	-8063.07	1	-3651
3318.45	6474.72	9793.17	0.45	3318
6928.06	6078.54	13006.6	0.06	6928
-7648.9	-4058.3	-11707.2	0.9	-7648
-4397.97	-852.639	-5250.609	0.97	-4397
-7489.46	-1661.47	-9150.93	0.46	-7489
-6716.22	-4244.65	-10960.87	0.22	-6716
3564.81	4444.99	8009.8	0.81	3564
6680.94	-2702.88	3978.06	0.94	6680
-1680.01	-7555.85	-9235.86	0.01	-1680
7640.41	5004.16	12644.57	0.41	7640
-1478.59	-6589.15	-8067.74	0.59	-1478
5861.24	-9733.42	-3872.18	0.24	5861
-5905.59	-541.243	-6446.833	0.59	-5905
4318.54	-2154.19	2164.35	0.54	4318
-3682.48	-388.196	-4070.676	0.48	-3682
-9666.03	9963.75	297.72	0.03	-9666
4873.29	-8780.17	-3906.88	0.29	4873
-3346.93	9979.84	6632.91	0.93	-3346
-7493.74	5792.12	-1701.62	0.74	-7493
-3337.36	-7397.5	-10734.86	0.36	-3337
2638.26	-1788.2	850.06	0.26	2638
-5430.12	629.889	-4800.231	0.12	-5430
-4793.68	3529.51	-1264.17	0.68	-4793
8696.18	1786.22	10482.4	0.18	8696
8473.53	-2667.98	5805.55	0.53	8473
2849.56	-8214.9	-5365.34	0.56	2849
8387.06	426.002	8813.062	0.06	8387
-1361.22	4057.93	2696.71	0.22	-1361
-1039.52	-4845.16	-5884.68	0.52	-1039
1667.88	-631.127	1036.753	0.88	1667
8046.86	-7333.99	712.87	0.86	8046
-306.616	2290.14	1983.524	0.016	-306.6
6577.08	-6232.62	344.46	0.08	6577
-8549.61	-9086.37	-17635.98	0.61	-8549
2787.73	1.37687	2789.10687	0.73	2787
5339.87	-5023.09	316.78	0.87	5339
8110.23	7227.5	15337.73	0.23	8110
1882.73	-3313.05	-1430.32	0.73	1882

6185.5	-6980.72	-795.22	0.5	6185
-7315.13	-2411.92	-9727.05	0.13	-7315
-9925.83	-9877.54	-19803.37	0.83	-9925
2328.09	529.884	2857.974	0.09	2328
-1559	9071.33	7512.33	0	-1559
-1409.14	7823.9	6414.76	0.14	-1409
3993.73	8997.65	12991.38	0.73	3993
4176.16	-7297.58	-3121.42	0.16	4176
34.9915	-427.108	-392.1165	0.0015	34.99
5335.95	-1147.67	4188.28	0.95	5335
-9034.88	7472.91	-1561.97	0.88	-9034
-5121.31	-1360.05	-6481.36	0.31	-5121
-1419.35	8676.39	7257.04	0.35	-1419
-7873.35	3990.26	-3883.09	0.35	-7873
-2183.9	8098.72	5914.82	0.9	-2183
3570.2	2230.4	5800.6	0.2	3570
-8616.3	-2175.38	-10791.68	0.3	-8616
7184.86	7757.27	14942.13	0.86	7184
-8477.65	-6741.5	-15219.15	0.65	-8477
-8096.84	8116.85	20.01	0.84	-8096
8345.88	5256.65	13602.53	0.88	8345
			50.3605	

Absolute Sums

Xvec	Yvec	True sums(xvec+yvec)	
551803.8505	459655.273	1011459.123	551753.49

9.12652E-05

8395.3605

Real mantisa

5129
9666
8051
9303
7624
600.6
5492
2626
5725
2948
7818
9590

1551
5484
9097
7286
6146
4857
9836
728.3
8635
4705
2282
8861
7189
7470
5070
8738
3815
9699
9568
6119
3106
3576
6391
4663
9305
2183
2084
9959
3651
3318
6928
7648
4397
7489
6716
3564
6680
1680
7640
1478
5861
5905
4318

3682
9666
4873
3346
7493
3337
2638
5430
4793
8696
8473
2849
8387
1361
1039
1667
8046
306.6
6577
8549
2787
5339
8110
1882
6185
7315
9925
2328
1559
1409
3993
4176
34.99
5335
9034
5121
1419
7873
2183
3570
8616
7184
8477

8096

Mantisa_X	Mantisa_Y	Exponent_X	Exponent_Y	AdditionM	AdditionExp	AdittionRem
-5129	-6836	0	0	-1197	1	5
-9666	1666	0	0	-8001	0	1667
-8051	-8001	0	0	-1605	1	2
-9303	-3125	0	0	-1243	1	8
-7624	-5921	0	-1	-8216	0	1
-6006	-9082	-1	0	-9683	0	6
-5492	-2492	0	-1	-5741	0	2
-2626	-8553	0	0	-1118	1	9
-5725	8910	0	-1	-4834	0	0
2948	-8895	0	0	-5947	0	-8895
7818	1205	0	0	9024	0	1205
9590	-8806	0	-1	8709	0	4
1551	-7368	0	-1	8142	-1	-7368
5484	5751	0	0	1124	1	5
-9097	-6069	0	0	-1517	1	6
-7286	4515	0	0	-2772	0	4515
-6146	-4409	0	0	-1056	1	5
-4857	-3300	0	0	-8157	0	-3299
-9836	3073	0	-1	-9529	0	7
7283	-6713	-1	0	-5985	0	7
8635	6472	0	0	1511	1	7
4705	-5549	0	0	-8440	-1	-5548
-2282	-6079	0	0	-8361	0	-6079
8861	-5344	0	0	3517	0	-5344
7189	6987	0	0	1418	1	6
7470	9832	0	-1	8453	0	2
5070	5327	0	0	1040	1	7
-8738	7736	0	0	-1003	0	7737
3815	5848	0	0	9664	0	5849
-9699	-2184	0	0	-1188	1	3
-9568	2752	0	0	-6817	0	2753
-6119	8301	0	0	2183	0	8301
3106	-2462	0	0	6440	-1	-2462
-3576	2143	0	0	-1434	0	2144
-6391	-7890	0	0	-1428	1	1
4663	-5112	0	-1	4152	0	8

9305	2952	0	-1	9600	0	2
-2183	-2854	0	0	-5037	0	-2853
2084	-5797	0	-1	1504	0	3
-9959	3230	0	0	-6730	0	3230
-3651	-4411	0	0	-8062	0	-4411
3318	6474	0	0	9793	0	6475
6928	6078	0	0	1301	1	6
-7648	-4058	0	0	-1171	1	6
-4397	-8526	0	-1	-5250	0	6
-7489	-1661	0	0	-9150	0	-1661
-6716	-4244	0	0	-1096	1	0
3564	4444	0	0	8009	0	4445
6680	-2702	0	0	3978	0	-2701
-1680	-7555	0	0	-9235	0	-7554
7640	5004	0	0	1264	1	4
-1478	-6589	0	0	-8067	0	-6589
5861	-9733	0	0	-3872	0	-9733
-5905	-5412	0	-1	-6446	0	2
4318	-2154	0	0	2164	0	-2154
-3682	-3881	0	-1	-4070	0	1
-9666	9963	0	0	2971	-1	9964
4873	-8780	0	0	-3907	0	-8780
-3346	9979	0	0	6634	0	9980
-7493	5792	0	0	-1702	0	5792
-3337	-7397	0	0	-1073	1	4
2638	-1788	0	0	8500	-1	-1788
-5430	6298	0	-1	-4800	0	2
-4793	3529	0	0	-1265	0	3530
8696	1786	0	0	1048	1	2
8473	-2667	0	0	5806	0	-2666
2849	-8214	0	0	-5365	0	-8213
8387	4260	0	-1	8813	0	0
-1361	4057	0	0	2697	0	4058
-1039	-4845	0	0	-5884	0	-4845
1667	-6311	0	-1	1036	0	9
8046	-7333	0	0	7130	-1	-7332
-3066	2290	-1	0	1983	0	4
6577	-6232	0	0	3450	-1	-6231
-8549	-9086	0	0	-1764	1	5
2787	1376	0	-3	2788	0	3
5339	-5023	0	0	3160	-1	-5023
8110	7227	0	0	1534	1	7
1882	-3313	0	0	-1431	0	-3313

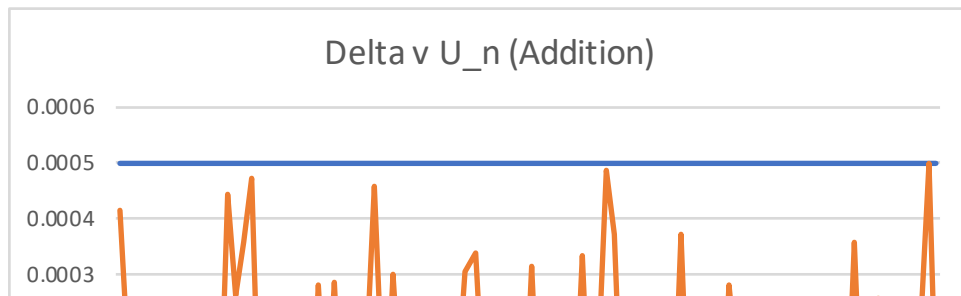
6185	-6980	0	0	-7950	-1	-6979
-7315	-2411	0	0	-9726	0	-2410
-9925	-9877	0	0	-1980	1	2
2328	5298	0	-1	2858	0	8
-1559	9071	0	0	7513	0	9071
-1409	7823	0	0	6415	0	7824
3993	8997	0	0	1299	1	0
4176	-7297	0	0	-3121	0	-7296
3499	-4271	-2	-1	-3921	-1	1
5335	-1147	0	0	4188	0	-1146
-9034	7472	0	0	-1563	0	7473
-5121	-1360	0	0	-6481	0	-1360
-1419	8676	0	0	7258	0	8676
-7873	3990	0	0	-3884	0	3990
-2183	8098	0	0	5916	0	8099
3570	2230	0	0	5801	0	2230
-8616	-2175	0	0	-1079	1	1
7184	7757	0	0	1494	1	1
-8477	-6741	0	0	-1522	1	8
-8096	8116	0	0	2001	-2	8117
8345	5256	0	0	1360	1	1

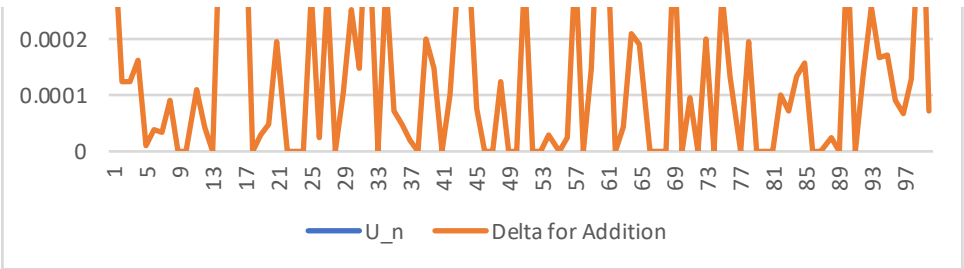
Mantisa_X
Mantisa_Y
Exponent_X
Exponent_Y
AdditionM
AdditionExp

543408.49

Relative Error

9.12736E-05





			Correctness test		
			Check round to nearest correctness test	Delta for Addition	Check Operator (+) correctness test
AdditionSgn	Delta	U_n			
-1	9.74839E-06	0.0005	Yay!	0.000417885	Yay
-1	8.89637E-05	0.0005	Yay!	0.000125	Yay
-1	8.07288E-05	0.0005	Yay!	0.000124595	Yay
-1	4.9444E-05	0.0005	Yay!	0.000160927	Yay
-1	9.83639E-05	0.0005	Yay!	1.21712E-05	Yay
-1	8.9902E-05	0.0005	Yay!	4.13112E-05	Yay
-1	0.000145645	0.0005	Yay!	3.48359E-05	Yay
-1	9.51928E-05	0.0005	Yay!	8.94534E-05	Yay
-1	0.000153688	0.0005	Yay!	0	Yay
-1	0.000162796	0.0005	Yay!	0	Yay
1	7.16244E-05	0.0005	Yay!	0.000110828	Yay
1	3.44097E-05	0.0005	Yay!	4.59274E-05	Yay
1	6.44704E-05	0.0005	Yay!	1.3963E-16	Yay
1	8.20502E-05	0.0005	Yay!	0.000445038	Yay
-1	7.25461E-05	0.0005	Yay!	0.000263748	Yay
-1	0.000115276	0.0005	Yay!	0.000360881	Yay
-1	0.000152922	0.0005	Yay!	0.000473709	Yay
-1	4.52934E-05	0.0005	Yay!	0	Yay
-1	7.31951E-05	0.0005	Yay!	3.14838E-05	Yay
-1	0.000122187	0.0005	Yay!	5.01278E-05	Yay
1	8.45325E-05	0.0005	Yay!	0.000198583	Yay
-1	5.52573E-05	0.0005	Yay!	0	Yay
-1	8.32534E-05	0.0005	Yay!	0	Yay
1	9.25318E-05	0.0005	Yay!	0	Yay
1	1.39099E-05	0.0005	Yay!	0.000282167	Yay
1	4.55133E-05	0.0005	Yay!	2.36597E-05	Yay
1	0.000147907	0.0005	Yay!	0.000288545	Yay
-1	8.46804E-05	0.0005	Yay!	1.99601E-06	Yay
1	0.000191313	0.0005	Yay!	0.000103488	Yay
-1	4.53634E-05	0.0005	Yay!	0.000252461	Yay
-1	0.000102414	0.0005	Yay!	0.000146714	Yay
1	2.45132E-05	0.0005	Yay!	0.000458295	Yay
1	0.000209229	0.0005	Yay!	0	Yay
-1	0.000273974	0.0005	Yay!	0.000302163	Yay
-1	3.28576E-05	0.0005	Yay!	7.00231E-05	Yay
1	0.000128656	0.0005	Yay!	4.81719E-05	Yay

1	1.18215E-05	0.0005 Yay!	2.08329E-05 Yay
-1	0.000196938	0.0005 Yay!	0 Yay
1	0.000407703	0.0005 Yay!	0.000199428 Yay
-1	9.5382E-05	0.0005 Yay!	0.00014861 Yay
-1	0.000273823	0.0005 Yay!	0 Yay
1	0.000135605	0.0005 Yay!	0.000102124 Yay
1	8.66043E-06	0.0005 Yay!	0.00030755 Yay
-1	0.000117664	0.0005 Yay!	0.000341705 Yay
-1	0.000220556	0.0005 Yay!	7.61963E-05 Yay
-1	6.14196E-05	0.0005 Yay!	0 Yay
-1	3.27565E-05	0.0005 Yay!	0 Yay
1	0.000227221	0.0005 Yay!	0.000124875 Yay
1	0.000140699	0.0005 Yay!	0 Yay
-1	5.95235E-06	0.0005 Yay!	0 Yay
1	5.3662E-05	0.0005 Yay!	0.000316356 Yay
-1	0.000399029	0.0005 Yay!	0 Yay
-1	4.0947E-05	0.0005 Yay!	0 Yay
-1	9.99053E-05	0.0005 Yay!	3.1026E-05 Yay
1	0.000125042	0.0005 Yay!	0 Yay
-1	0.000130347	0.0005 Yay!	2.45694E-05 Yay
1	3.10365E-06	0.0005 Yay!	0.0003367 Yay
-1	5.95081E-05	0.0005 Yay!	0 Yay
1	0.000277867	0.0005 Yay!	0.000150761 Yay
-1	9.87491E-05	0.0005 Yay!	0.000487889 Yay
-1	0.00010787	0.0005 Yay!	0.000372648 Yay
1	9.85498E-05	0.0005 Yay!	0 Yay
-1	2.2099E-05	0.0005 Yay!	4.16649E-05 Yay
-1	0.000141853	0.0005 Yay!	0.000208861 Yay
1	2.06987E-05	0.0005 Yay!	0.000190803 Yay
1	6.25477E-05	0.0005 Yay!	0 Yay
-1	0.000196522	0.0005 Yay!	0 Yay
1	7.15388E-06	0.0005 Yay!	0 Yay
1	0.00016162	0.0005 Yay!	0.00037092 Yay
-1	0.000400231	0.0005 Yay!	0 Yay
1	0.000427616	0.0005 Yay!	9.65344E-05 Yay
1	0.000106874	0.0005 Yay!	0 Yay
1	5.21825E-05	0.0005 Yay!	0.000201674 Yay
1	1.21635E-05	0.0005 Yay!	0 Yay
-1	7.13483E-05	0.0005 Yay!	0.000283527 Yay
1	0.000261862	0.0005 Yay!	0.000134846 Yay
1	0.000162925	0.0005 Yay!	0 Yay
1	2.83592E-05	0.0005 Yay!	0.000195605 Yay
-1	0.000387735	0.0005 Yay!	0 Yay

-1	8.08342E-05	0.0005 Yay!	0 Yay
-1	1.77714E-05	0.0005 Yay!	0 Yay
-1	8.36202E-05	0.0005 Yay!	0.000101 Yay
1	3.86583E-05	0.0005 Yay!	6.99839E-05 Yay
1	0	0.0005 Yay!	0.00013312 Yay
1	9.93514E-05	0.0005 Yay!	0.000155909 Yay
1	0.000182787	0.0005 Yay!	0 Yay
-1	3.83127E-05	0.0005 Yay!	0 Yay
-1	4.28676E-05	0.0005 Yay!	2.5503E-05 Yay
1	0.000178038	0.0005 Yay!	0 Yay
-1	9.74003E-05	0.0005 Yay!	0.000359795 Yay
-1	6.05314E-05	0.0005 Yay!	0 Yay
1	0.000246592	0.0005 Yay!	0.000137798 Yay
-1	4.44538E-05	0.0005 Yay!	0.000257533 Yay
1	0.000412107	0.0005 Yay!	0.000169062 Yay
1	5.60193E-05	0.0005 Yay!	0.000172414 Yay
-1	3.48177E-05	0.0005 Yay!	9.26698E-05 Yay
1	0.000119696	0.0005 Yay!	6.69299E-05 Yay
-1	7.66722E-05	0.0005 Yay!	0.000131423 Yay
1	0.000103744	0.0005 Yay!	0.0005 Nope
1	0.000105441	0.0005 Yay!	7.3524E-05 Yay

Average Delta
0.000114986

Max Delta
0.000427616

Standard
deviation of
Delta

9.88122E-05
Median of Delta
9.12169E-05

Variance of Delta
9.76386E-09

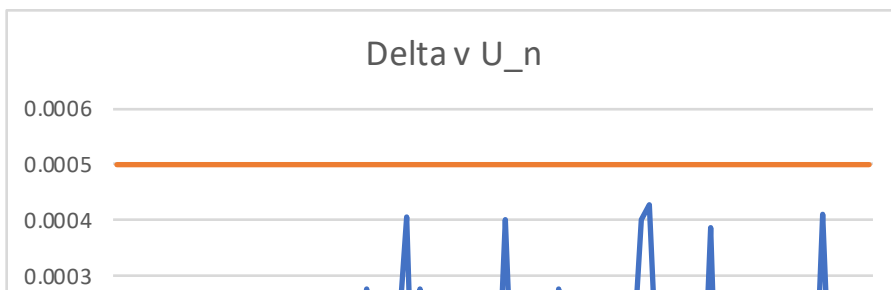
Avg Delta Addition
0.000121766

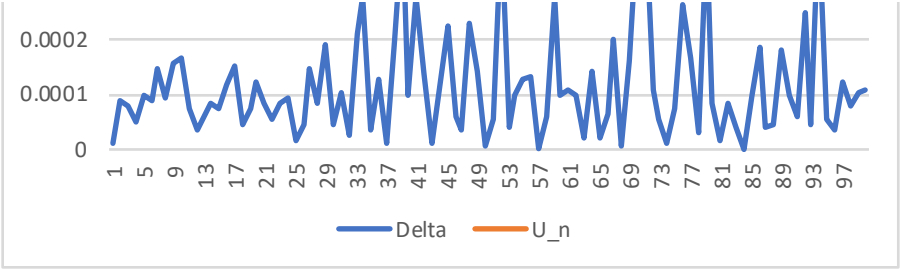
Max Delta Addition
0.0005

Standard Deviation
0.000140364

Median of Delta Addition
7.17736E-05

Variance of Delta
1.9702E-08





Condition Analysis

K_rel approx	relative error	Check
9.12736E-05	9.12652E-05	yes