

Table 9.2

## BESSEL FUNCTIONS—ORDERS 3–9

$x$	$J_3(x)$	$J_4(x)$	$J_5(x)$	$J_6(x)$	$J_7(x)$	$J_8(x)$	$J_9(x)$
0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.2	(-4) 1.6625	(-6) 4.1583	(-8) 8.3195	(-9) 1.3869	(-11) 1.9816	(-13) 2.4774	(-15) 2.7530
0.4	(-3) 1.3201	(-5) 6.6135	(-6) 2.6489	(-8) 8.8382	(-9) 2.5270	(-11) 6.3210	(-12) 1.4053
0.6	(-3) 4.3997	(-4) 3.3147	(-5) 1.9948	(-7) 9.9956	(-8) 4.2907	(-9) 1.6110	(-11) 5.3755
0.8	(-2) 1.0247	(-3) 1.0330	(-5) 8.3084	(-6) 5.5601	(-7) 3.1864	(-8) 1.5967	(-10) 7.1092
1.0	(-2) 1.9563	(-3) 2.4766	(-4) 2.4976	(-5) 2.0938	(-6) 1.5023	(-8) 9.4223	(-9) 5.2493
1.2	(-2) 3.2874	(-3) 5.0227	(-4) 6.1010	(-5) 6.1541	(-6) 5.3093	(-7) 4.0021	(-8) 2.6788
1.4	(-2) 5.0498	(-3) 9.0629	(-3) 1.2901	(-4) 1.5231	(-5) 1.5366	(-6) 1.3538	(-7) 1.0587
1.6	(-2) 7.2523	(-2) 1.4995	(-3) 2.4524	(-4) 3.3210	(-5) 3.8397	(-6) 3.8744	(-7) 3.4687
1.8	(-2) 9.8802	(-2) 2.3197	(-3) 4.2936	(-4) 6.5690	(-5) 8.5712	(-6) 9.7534	(-7) 9.8426
2.0	0.12894	(-2) 3.3996	(-3) 7.0396	(-3) 1.2024	(-4) 1.7494	(-5) 2.2180	(-6) 2.4923
2.2	0.16233	(-2) 4.7647	(-2) 1.0937	(-3) 2.0660	(-4) 3.3195	(-5) 4.6434	(-6) 5.7535
2.4	0.19811	(-2) 6.4307	(-2) 1.6242	(-3) 3.3669	(-4) 5.9274	(-5) 9.0756	(-5) 1.2300
2.6	0.23529	(-2) 8.4013	(-2) 2.3207	(-3) 5.2461	(-3) 1.0054	(-4) 1.6738	(-5) 2.4647
2.8	0.27270	(-1) 1.0667	(-2) 3.2069	(-3) 7.8634	(-3) 1.6314	(-4) 2.9367	(-5) 4.6719
3.0	0.30906	0.13203	(-2) 4.3028	(-2) 1.1394	(-3) 2.5473	(-4) 4.9344	(-5) 8.4395
3.2	0.34307	0.15972	(-2) 5.6238	(-2) 1.6022	(-3) 3.8446	(-4) 7.9815	(-4) 1.4615
3.4	0.37339	0.18920	(-2) 7.1785	(-2) 2.1934	(-3) 5.6301	(-3) 1.2482	(-4) 2.4382
3.6	0.39876	0.21980	(-2) 8.9680	(-2) 2.9311	(-3) 8.0242	(-3) 1.8940	(-4) 3.9339
3.8	0.41803	0.25074	(-1) 1.0984	(-2) 3.8316	(-2) 1.1159	(-3) 2.7966	(-4) 6.1597
4.0	0.43017	0.28113	0.13209	(-2) 4.9088	(-2) 1.5176	(-3) 4.0287	(-4) 9.3860
4.2	0.43439	0.31003	0.15614	(-2) 6.1725	(-2) 2.0220	(-3) 5.6739	(-3) 1.3952
4.4	0.43013	0.33645	0.18160	(-2) 7.6279	(-2) 2.6433	(-3) 7.8267	(-3) 2.0275
4.6	0.41707	0.35941	0.20799	(-2) 9.2745	(-2) 3.3953	(-2) 1.0591	(-3) 2.8852
4.8	0.39521	0.37796	0.23473	(-1) 1.1105	(-2) 4.2901	(-2) 1.4079	(-3) 4.0270
5.0	0.36483	0.39123	0.26114	0.13105	(-2) 5.3376	(-2) 1.8405	(-3) 5.5203
5.2	0.32652	0.39847	0.28651	0.15252	(-2) 6.5447	(-2) 2.3689	(-3) 7.4411
5.4	0.28113	0.39906	0.31007	0.17515	(-2) 7.9145	(-2) 3.0044	(-3) 9.8734
5.6	0.22978	0.39257	0.33103	0.19856	(-2) 9.4455	(-2) 3.7577	(-2) 1.2907
5.8	0.17382	0.37877	0.34862	0.22230	(-1) 1.1131	(-2) 4.6381	(-2) 1.6639
6.0	0.11477	0.35764	0.36209	0.24584	0.12959	(-2) 5.6532	(-2) 2.1165
6.2	+0.05428	0.32941	0.37077	0.26860	0.14910	(-2) 6.8077	(-2) 2.6585
6.4	-0.00591	0.29453	0.37408	0.28996	0.16960	(-2) 8.1035	(-2) 3.2990
6.6	-0.06406	0.25368	0.37155	0.30928	0.19077	(-2) 9.5385	(-2) 4.0468
6.8	-0.11847	0.20774	0.36288	0.32590	0.21224	(-1) 1.1107	(-2) 4.9093
7.0	-0.16756	0.15780	0.34790	0.33920	0.23358	0.12797	(-2) 5.8921
7.2	-0.20987	0.10509	0.32663	0.34857	0.25432	0.14594	(-2) 6.9987
7.4	-0.24420	+0.05097	0.29930	0.35349	0.27393	0.16476	(-2) 8.2300
7.6	-0.26958	-0.00313	0.26629	0.35351	0.29188	0.18417	(-2) 9.5839
7.8	-0.28535	-0.05572	0.22820	0.34828	0.30762	0.20385	(-1) 1.1054
8.0	-0.29113	-0.10536	0.18577	0.33758	0.32059	0.22345	0.12632
8.2	-0.28692	-0.15065	0.13994	0.32131	0.33027	0.24257	0.14303
8.4	-0.27302	-0.19033	0.09175	0.29956	0.33619	0.26075	0.16049
8.6	-0.25005	-0.22326	+0.04237	0.27253	0.33790	0.27755	0.17847
8.8	-0.21896	-0.24854	-0.00699	0.24060	0.33508	0.29248	0.19670
9.0	-0.18094	-0.26547	-0.05504	0.20432	0.32746	0.30507	0.21488
9.2	-0.13740	-0.27362	-0.10053	0.16435	0.31490	0.31484	0.23266
9.4	-0.08997	-0.27284	-0.14224	0.12152	0.29737	0.32138	0.24965
9.6	-0.04034	-0.26326	-0.17904	0.07676	0.27499	0.32427	0.26546
9.8	+0.00970	-0.24528	-0.20993	+0.03107	0.24797	0.32318	0.27967
10.0	0.05838	-0.21960	-0.23406	-0.01446	0.21671	0.31785	0.29186

Compiled from British Association for the Advancement of Science, Bessel functions, Part II. Functions of positive integer order, Mathematical Tables, vol. X (Cambridge Univ. Press, Cambridge, England, 1952) and Mathematical Tables Project, Table of  $f_n(x) = n!(\frac{1}{2}x)^{-n}J_n(x)$ . J. Math. Phys. 23, 45–60 (1944) (with permission).

## BESSEL FUNCTIONS—ORDERS 3-9

Table 9.2

$x$	$Y_3(x)$	$Y_4(x)$	$Y_5(x)$	$Y_6(x)$	$Y_7(x)$	$Y_8(x)$	$Y_9(x)$
0.0	$-\infty$	$-\infty$	$-\infty$	$-\infty$	$-\infty$	$-\infty$	$-\infty$
0.2	(2) -6.3982	(4) -1.9162	(5) -7.6586	(7) -3.8274	(9) -2.2957	(11) -1.6066	(13) -1.2850
0.4	(1) -8.1202	(3) -1.2097	(4) -2.4114	(5) -6.0163	(7) -1.8025	(8) -6.3027	(10) -2.5193
0.6	(1) -2.4692	(2) -2.4302	(3) -3.2156	(4) -5.3351	(6) -1.0638	(7) -2.4769	(8) -6.5943
0.8	(1) -1.0815	(1) -7.8751	(2) -7.7670	(3) -9.6300	(5) -1.4367	(6) -2.5046	(7) -4.9949
1.0	-5.8215	(1) -3.3278	(2) -2.6041	(3) -2.5708	(4) -3.0589	(5) -4.2567	(6) -6.7802
1.2	-3.5899	(1) -1.6686	(2) -1.0765	(2) -8.8041	(3) -8.6964	(5) -1.0058	(6) -1.3323
1.4	-2.4420	-9.4432	(1) -5.1519	(2) -3.5855	(3) -3.0218	(4) -2.9859	(5) -3.3823
1.6	-1.7897	-5.8564	(1) -2.7492	(2) -1.6597	(3) -1.2173	(4) -1.0485	(5) -1.0364
1.8	-1.3896	-3.9059	(1) -1.5970	(1) -8.4816	(2) -5.4947	(3) -4.1889	(4) -3.6685
2.0	-1.1278	-2.7659	-9.9360	(1) -4.6914	(2) -2.7155	(3) -1.8539	(4) -1.4560
2.2	-0.94591	-2.0603	-6.5462	(1) -2.7695	(2) -1.4452	(2) -8.9196	(3) -6.3425
2.4	-0.81161	-1.6024	-4.5296	(1) -1.7271	(1) -8.1825	(2) -4.6004	(3) -2.9851
2.6	-0.70596	-1.2927	-3.2716	(1) -1.1290	(1) -4.8837	(2) -2.5168	(3) -1.5000
2.8	-0.61736	-1.0752	-2.4548	-7.6918	(1) -3.0510	(2) -1.4486	(2) -7.9725
3.0	-0.53854	-0.91668	-1.9059	-5.4365	(1) -1.9840	(1) -8.7150	(2) -4.4496
3.2	-0.46491	-0.79635	-1.5260	-3.9723	(1) -1.3370	(1) -5.4522	(2) -2.5924
3.4	-0.39363	-0.70092	-1.2556	-2.9920	-9.3044	(1) -3.5320	(2) -1.5691
3.6	-0.32310	-0.62156	-1.0581	-2.3177	-6.6677	(1) -2.3612	(1) -9.8275
3.8	-0.25259	-0.55227	-0.91009	-1.8427	-4.9090	(1) -1.6243	(1) -6.3483
4.0	-0.18202	-0.48894	-0.79585	-1.5007	-3.7062	(1) -1.1471	(1) -4.2178
4.2	-0.11183	-0.42875	-0.70484	-1.2494	-2.8650	-8.3005	(1) -2.8756
4.4	-0.04278	-0.36985	-0.62967	-1.0612	-2.2645	-6.1442	(1) -2.0078
4.6	+0.02406	-0.31109	-0.56509	-0.91737	-1.8281	-4.6463	(1) -1.4333
4.8	0.08751	-0.25190	-0.50735	-0.80507	-1.5053	-3.5855	(1) -1.0446
5.0	0.14627	-0.19214	-0.45369	-0.71525	-1.2629	-2.8209	-7.7639
5.2	0.19905	-0.13204	-0.40218	-0.64139	-1.0780	-2.2608	-5.8783
5.4	0.24463	-0.07211	-0.35146	-0.57874	-0.93462	-1.8444	-4.5302
5.6	0.28192	-0.01310	-0.30063	-0.52375	-0.82168	-1.5304	-3.5510
5.8	0.31001	+0.04407	-0.24922	-0.47377	-0.73099	-1.2907	-2.8295
6.0	0.32825	0.09839	-0.19706	-0.42683	-0.65659	-1.1052	-2.2907
6.2	0.33622	0.14877	-0.14426	-0.38145	-0.59403	-0.95990	-1.8831
6.4	0.33383	0.19413	-0.09117	-0.33658	-0.53992	-0.84450	-1.5713
6.6	0.32128	0.23344	-0.03833	-0.29151	-0.49169	-0.75147	-1.3301
6.8	0.29909	0.26576	+0.01357	-0.24581	-0.44735	-0.67521	-1.1414
7.0	0.26808	0.29031	0.06370	-0.19931	-0.40537	-0.61144	-0.99220
7.2	0.22934	0.30647	0.11119	-0.15204	-0.36459	-0.55689	-0.87293
7.4	0.18420	0.31385	0.15509	-0.10426	-0.32416	-0.50902	-0.77643
7.6	0.13421	0.31228	0.19450	-0.05635	-0.28348	-0.46585	-0.69726
7.8	0.08106	0.30186	0.22854	-0.00886	-0.24217	-0.42581	-0.63128
8.0	+0.02654	0.28294	0.25640	+0.03756	-0.20006	-0.38767	-0.57528
8.2	-0.02753	0.25613	0.27741	0.08218	-0.15716	-0.35049	-0.52673
8.4	-0.07935	0.22228	0.29104	0.12420	-0.11361	-0.31355	-0.48363
8.6	-0.12723	0.18244	0.29694	0.16284	-0.06973	-0.27635	-0.44440
8.8	-0.16959	0.13789	0.29495	0.19728	-0.02593	-0.23853	-0.40777
9.0	-0.20509	0.09003	0.28512	0.22677	+0.01724	-0.19995	-0.37271
9.2	-0.23262	+0.04037	0.26773	0.25064	0.05920	-0.16056	-0.33843
9.4	-0.25136	-0.00951	0.24326	0.26830	0.09925	-0.12048	-0.30433
9.6	-0.26079	-0.05804	0.21243	0.27932	0.13672	-0.07994	-0.26995
9.8	-0.26074	-0.10366	0.17612	0.28338	0.17087	-0.03928	-0.23499
10.0	-0.25136	-0.14495	0.13540	0.28035	0.20102	+0.00108	-0.19930

Table 9.2

## BESSEL FUNCTIONS—ORDERS 3-9

$x$	$J_3(x)$	$J_4(x)$	$J_5(x)$	$J_6(x)$	$J_7(x)$	$J_8(x)$	$J_9(x)$
10.0	0.05838	-0.21960	-0.23406	-0.01446	0.21671	0.31785	0.29186
10.2	0.10400	-0.18715	-0.25078	-0.05871	0.18170	0.30811	0.30161
10.4	0.14497	-0.14906	-0.25964	-0.10059	0.14358	0.29386	0.30852
10.6	0.17992	-0.10669	-0.26044	-0.13901	0.10308	0.27515	0.31224
10.8	0.20768	-0.06150	-0.25323	-0.17297	0.06104	0.25210	0.31244
11.0	0.22735	-0.01504	-0.23829	-0.20158	+0.01838	0.22497	0.30886
11.2	0.23835	+0.03110	-0.21614	-0.22408	-0.02395	0.19414	0.30130
11.4	0.24041	0.07534	-0.18754	-0.23985	-0.06494	0.16010	0.28964
11.6	0.23359	0.11621	-0.15345	-0.24849	-0.10361	0.12344	0.27388
11.8	0.21827	0.15232	-0.11500	-0.24978	-0.13901	0.08485	0.25407
12.0	0.19514	0.18250	-0.07347	-0.24372	-0.17025	0.04510	0.23038
12.2	0.16515	0.20576	-0.03023	-0.23053	-0.19653	+0.00501	0.20310
12.4	0.12951	0.22138	+0.01331	-0.21064	-0.21716	-0.03453	0.17260
12.6	0.08963	0.22890	0.05571	-0.18469	-0.23160	-0.07264	0.13935
12.8	0.04702	0.22815	0.09557	-0.15349	-0.23947	-0.10843	0.10393
13.0	+0.00332	0.21928	0.13162	-0.11803	-0.24057	-0.14105	0.06698
13.2	-0.03984	0.20268	0.16267	-0.07944	-0.23489	-0.16969	+0.02921
13.4	-0.08085	0.17905	0.18774	-0.03894	-0.22261	-0.19364	-0.00860
13.6	-0.11822	0.14931	0.20605	+0.00220	-0.20411	-0.21231	-0.04567
13.8	-0.15059	0.11460	0.21702	0.04266	-0.17993	-0.22520	-0.08117
14.0	-0.17681	0.07624	0.22038	0.08117	-0.15080	-0.23197	-0.11431
14.2	-0.19598	+0.03566	0.21607	0.11650	-0.11762	-0.23246	-0.14432
14.4	-0.20747	-0.00566	0.20433	0.14756	-0.08136	-0.22666	-0.17048
14.6	-0.21094	-0.04620	0.18563	0.17335	-0.04315	-0.21472	-0.19216
14.8	-0.20637	-0.08450	0.16069	0.19308	-0.00415	-0.19700	-0.20883
15.0	-0.19402	-0.11918	0.13046	0.20615	+0.03446	-0.17398	-0.22005
15.2	-0.17445	-0.14901	0.09603	0.21219	0.07149	-0.14634	-0.22553
15.4	-0.14850	-0.17296	0.05865	0.21105	0.10580	-0.11487	-0.22514
15.6	-0.11723	-0.19021	+0.01968	0.20283	0.13634	-0.08047	-0.21888
15.8	-0.08188	-0.20020	-0.01949	0.18787	0.16217	-0.04417	-0.20690
16.0	-0.04385	-0.20264	-0.05747	0.16672	0.18251	-0.00702	-0.18953
16.2	-0.00461	-0.19752	-0.09293	0.14016	0.19675	+0.02987	-0.16725
16.4	+0.03432	-0.18511	-0.12462	0.10913	0.20447	0.06542	-0.14065
16.6	0.07146	-0.16596	-0.15144	0.07473	0.20546	0.09855	-0.11047
16.8	0.10542	-0.14083	-0.17248	0.03817	0.19974	0.12829	-0.07756
17.0	0.13493	-0.11074	-0.18704	+0.00072	0.18755	0.15374	-0.04286
17.2	0.15891	-0.07685	-0.19466	-0.03632	0.16932	0.17414	-0.00733
17.4	0.17651	-0.04048	-0.19512	-0.07166	0.14570	0.18889	+0.02799
17.6	0.18712	-0.00300	-0.18848	-0.10410	0.11751	0.19757	0.06210
17.8	0.19041	+0.03417	-0.17505	-0.13251	0.08571	0.19993	0.09400
18.0	0.18632	0.06964	-0.15537	-0.15596	0.05140	0.19593	0.12276
18.2	0.17510	0.10209	-0.13022	-0.17364	+0.01573	0.18574	0.14756
18.4	0.15724	0.13033	-0.10058	-0.18499	-0.02007	0.16972	0.16766
18.6	0.13351	0.15334	-0.06756	-0.18966	-0.05481	0.14841	0.18247
18.8	0.10487	0.17031	-0.03240	-0.18755	-0.08731	0.12253	0.19159
19.0	0.07249	0.18065	+0.00357	-0.17877	-0.11648	0.09294	0.19474
19.2	0.03764	0.18403	0.03904	-0.16370	-0.14135	0.06063	0.19187
19.4	+0.00170	0.18039	0.07269	-0.14292	-0.16110	+0.02667	0.18309
19.6	-0.03395	0.16994	0.10331	-0.11723	-0.17508	-0.00783	0.16869
19.8	-0.06791	0.15313	0.12978	-0.08759	-0.18287	-0.04171	0.14916
20.0	-0.09890	0.13067	0.15117	-0.05509	-0.18422	-0.07387	0.12513
	$\begin{bmatrix} (-3)1 \\ 5 \end{bmatrix}$	$\begin{bmatrix} (-3)1 \\ 5 \end{bmatrix}$	$\begin{bmatrix} (-3)1 \\ 5 \end{bmatrix}$	$\begin{bmatrix} (-4)9 \\ 5 \end{bmatrix}$	$\begin{bmatrix} (-4)8 \\ 5 \end{bmatrix}$	$\begin{bmatrix} (-4)8 \\ 5 \end{bmatrix}$	$\begin{bmatrix} (-4)8 \\ 5 \end{bmatrix}$

BESSEL FUNCTIONS—ORDERS 3-9

Table 9.2

$x$	$Y_3(x)$	$Y_4(x)$	$Y_5(x)$	$Y_6(x)$	$Y_7(x)$	$Y_8(x)$	$Y_9(x)$
10.0	-0.25136	-0.14495	0.13540	0.28035	0.20102	0.00108	-0.19930
10.2	-0.23314	-0.18061	0.09148	0.27030	0.22652	0.04061	-0.16282
10.4	-0.20686	-0.20954	+0.04567	0.25346	0.24678	0.07874	-0.12563
10.6	-0.17359	-0.23087	-0.00065	0.23025	0.26131	0.11488	-0.08791
10.8	-0.13463	-0.24397	-0.04609	0.20130	0.26975	0.14838	-0.04993
11.0	-0.09148	-0.24851	-0.08925	0.16737	0.27184	0.17861	-0.01205
11.2	-0.04577	-0.24445	-0.12884	0.12941	0.26750	0.20496	+0.02530
11.4	+0.00082	-0.23203	-0.16365	0.08848	0.25678	0.22687	0.06163
11.6	0.04657	-0.21178	-0.19262	0.04573	0.23992	0.24384	0.09640
11.8	0.08981	-0.18450	-0.21489	+0.00238	0.21732	0.25545	0.12906
12.0	0.12901	-0.15122	-0.22982	-0.04030	0.18952	0.26140	0.15902
12.2	0.16277	-0.11317	-0.23698	-0.08107	0.15724	0.26151	0.18573
12.4	0.18994	-0.07175	-0.23623	-0.11875	0.12130	0.25571	0.20865
12.6	0.20959	-0.02845	-0.22766	-0.15223	0.08268	0.24409	0.22728
12.8	0.22112	+0.01518	-0.21163	-0.18052	0.04240	0.22689	0.24122
13.0	0.22420	0.05759	-0.18876	-0.20279	+0.00157	0.20448	0.25010
13.2	0.21883	0.09729	-0.15987	-0.21840	-0.03868	0.17738	0.25369
13.4	0.20534	0.13289	-0.12600	-0.22692	-0.07722	0.14625	0.25184
13.6	0.18432	0.16318	-0.08833	-0.22813	-0.11296	0.11185	0.24454
13.8	0.15666	0.18712	-0.04819	-0.22204	-0.14489	0.07505	0.23190
14.0	0.12350	0.20393	-0.00697	-0.20891	-0.17209	+0.03682	0.21417
14.2	0.08615	0.21308	+0.03390	-0.18921	-0.19380	-0.00186	0.19170
14.4	0.04605	0.21434	0.07303	-0.16363	-0.20939	-0.03994	0.16501
14.6	+0.00477	0.20775	0.10907	-0.13305	-0.21842	-0.07640	0.13470
14.8	-0.03613	0.19364	0.14080	-0.09850	-0.22067	-0.11024	0.10149
15.0	-0.07511	0.17261	0.16717	-0.06116	-0.21610	-0.14053	0.06620
15.2	-0.11072	0.14550	0.18730	-0.02228	-0.20489	-0.16644	+0.02969
15.4	-0.14165	0.11339	0.20055	+0.01684	-0.18743	-0.18723	-0.00710
15.6	-0.16678	0.07750	0.20652	0.05489	-0.16430	-0.20234	-0.04322
15.8	-0.18523	+0.03920	0.20507	0.09059	-0.13627	-0.21134	-0.07775
16.0	-0.19637	-0.00007	0.19633	0.12278	-0.10425	-0.21399	-0.10975
16.2	-0.19986	-0.03885	0.18067	0.15038	-0.06928	-0.21025	-0.13838
16.4	-0.19566	-0.07571	0.15873	0.17250	-0.03251	-0.20025	-0.16286
16.6	-0.18402	-0.10930	0.13135	0.18843	+0.00487	-0.18432	-0.18253
16.8	-0.16547	-0.13841	0.09956	0.19767	0.04164	-0.16297	-0.19685
17.0	-0.14078	-0.16200	0.06455	0.19996	0.07660	-0.13688	-0.20543
17.2	-0.11098	-0.17924	+0.02761	0.19529	0.10864	-0.10686	-0.20805
17.4	-0.07725	-0.18956	-0.00990	0.18387	0.13671	-0.07387	-0.20464
17.6	-0.04094	-0.19265	-0.04663	0.16616	0.15991	-0.03895	-0.19533
17.8	-0.00347	-0.18846	-0.08123	0.14282	0.17752	-0.00320	-0.18039
18.0	+0.03372	-0.17722	-0.11249	0.11472	0.18897	+0.03225	-0.16030
18.2	0.06920	-0.15942	-0.13928	0.08289	0.19393	0.06629	-0.13566
18.4	0.10163	-0.13580	-0.16067	0.04848	0.19229	0.09782	-0.10722
18.6	0.12977	-0.10731	-0.17593	+0.01272	0.18414	0.12587	-0.07586
18.8	0.15261	-0.07506	-0.18455	-0.02310	0.16980	0.14955	-0.04252
19.0	0.16930	-0.04031	-0.18628	-0.05773	0.14982	0.16812	-0.00824
19.2	0.17927	-0.00440	-0.18111	-0.08993	0.12490	0.18100	+0.02593
19.4	0.18221	+0.03131	-0.16930	-0.11857	0.09595	0.18782	0.05895
19.6	0.17805	0.06546	-0.15134	-0.14267	0.06399	0.18838	0.08979
19.8	0.16705	0.09678	-0.12794	-0.16139	+0.03013	0.18270	0.11750
20.0	0.14967 $\left[ \begin{smallmatrix} (-3)1 \\ 5 \end{smallmatrix} \right]$	0.12409 $\left[ \begin{smallmatrix} (-3)1 \\ 5 \end{smallmatrix} \right]$	-0.10004 $\left[ \begin{smallmatrix} (-3)1 \\ 5 \end{smallmatrix} \right]$	-0.17411 $\left[ \begin{smallmatrix} (-4)9 \\ 5 \end{smallmatrix} \right]$	-0.00443 $\left[ \begin{smallmatrix} (-4)9 \\ 5 \end{smallmatrix} \right]$	0.17101 $\left[ \begin{smallmatrix} (-4)8 \\ 5 \end{smallmatrix} \right]$	0.14124 $\left[ \begin{smallmatrix} (-4)8 \\ 5 \end{smallmatrix} \right]$