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Tables of the Function $\frac{x^n K_n(x)}{2^{n-1}(n-1)!}$

for Use as Cumulative Frequency Distributions

by

N. I. Bullen, B.Sc and Elizabeth Busby

LONDON: HER MAJESTY'S STATIONERY OFFICE

1964

SEVEN SHILLINGS NET

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C.P. No.765
February 1964

TABLES OF THE FUNCTION $\frac{x^n K_n(x)}{2^{n-1}(n-1)!}$ FOR USE AS CUMULATIVE FREQUENCY DISTRIBUTIONS

by

N. I. Bullen, B.Sc.
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Elizabeth Busby

SUMMARY

It has been shown that the function $\frac{x^n K_n(x)}{2^{n-1}(n-1)!}$ is useful for fitting to observed cumulative frequency distributions of gust loads on aircraft.

The present paper makes available tables of this function and describes briefly the methods by which they were computed and prepared.

The function and its logarithm are tabulated for the values:-

$$x = 0.1(0.1)20$$
$$n = \tfrac{1}{2}(\tfrac{1}{2})\ 6(1)\ 10\ .$$

Replaces R.A.E. Technical Note No. Structures 346 - A.R.C. 25,922.

INTRODUCTION

In a previous paper[1] an expression is derived for use in describing frequency distributions of gust loads observed on aircraft for both uniform and variable conditions.

It is found that the simple conditions leading to a Rayleigh distribution are seldom satisfied in practice, and the paper describes an extension of the simple theory which leads to an expression which satisfactorily fits the majority of observed gust distributions. The function derived for the cumulative distribution is $\frac{1}{2^{n-1}(n-1)!}\left(\frac{x}{a}\right)^n K_n\left(\frac{x}{a}\right)$ where K_n is the modified Bessel function.

This expression contains two parameters, one, n, determining the shape of the distribution and the other, a, its scale.

From the fitted distribution certain properties of the variable such as the root-mean-square value and characteristic frequency (i.e. the number of "zero crossings" per unit time or distance) are easily deduced. It is often required to examine how these properties, or the parameters of the distribution themselves, vary over a wide range of conditions. This necessitates a good deal of curve fitting, and it is therefore desirable to have tables of the function readily available. Existing tables are not always adequate or convenient.

Experience in fitting the function has shown that for moderate to large values of n, (greater than say about 5) the shape of the distribution changes comparatively slowly with n and fitting to an observed distribution is usually possible with an integral value of n. For this purpose calculations can be made using tables of $K_n(x)$, or in some cases of $x^nK_n(x)$, prepared by the British Association for the Advancement of Science[2]. For smaller values of n, the tables for integral n are not always adequate. Fortunately when n is half an odd integer, $K_n(x)$ reduces to an exponential term multiplied by a polynomial in x, and existing tables can be supplemented in this way. However, in all these cases, some further computation is necessary, and it was therefore considered to be worthwhile to prepare tables of the required function over the necessary range.

It is convenient for our purpose to write

$$k_n(x) = \frac{1}{2^{n-1}(n-1)!}x^nK_n(x) \quad . \qquad (1)$$

This function satisfies the condition $k_n(0) = 1$, as is necessary for a cumulative frequency distribution, and also satisfies the recurrence relation:-

$$k_n(x) = k_{n-1}(x) + \frac{x^2}{4(n-1)(n-2)}k_{n-2}(x) \quad . \qquad (2)$$

DESCRIPTION OF THE TABLES

The tables give the value of $k_n(x)$ to five significant figures and its logarithm to the base 10 to five decimal places for $n = \frac{1}{2}\ (\frac{1}{2})\ 6\ (1)\ 10$ and $x = 0.1\ (0.1)\ 20.0$. The first column of the table gives the value of x and the next two columns the value of $k_n(x)$ in floating point form. The final column gives the mantissa of the logarithm to the base 10 of $k_n(x)$. Thus the last two columns give the complete logarithm, since the exponent of the floating point number is also the characteristic of the logarithm.

The logarithms will often be found convenient for interpolation purposes as over much of the tabulated range linear interpolation between them will give adequate accuracy. The logarithms are also useful when it is required to fit a ratio of observed frequencies.

METHOD OF COMPUTATION

The tables have been computed on a "Mercury" electronic computer. The methods employed were as follows. For n equal to half an odd integer, the values of $k_n(x)$ for $n = \frac{1}{2}$ and $n = 1\frac{1}{2}$ were first computed internally by the machine from the formulae

$$k_{\frac{1}{2}}(x) = e^{-x}$$

$$k_{1\frac{1}{2}}(x) = (1 + x)e^{-x} \quad .$$

The successive values for $n = 2\frac{1}{2}$, $3\frac{1}{2}$, $4\frac{1}{2}$ and $5\frac{1}{2}$ were then determined from the recurrence relation (2).

For integral n, values of $k_n(x)$ are based on the British Association tabulation[2] of $K_1(x)$ and $K_2(x)$. Values of these functions were punched to seven significant figures on the input tape, two tapes being punched independently and compared to reduce the chance of error. Values of $k_1(x)$ and $k_2(x)$ were computed from

$$k_1(x) = xK_1(x)$$

$$k_2(x) = \frac{x^2}{2} K_2(x)$$

and the recurrence relation (2) was then used to determine $k_n(x)$ for integral values of n from 3 to 10. For all values of $k_n(x)$ the logarithm to the base 10 was also computed by the machine.

Finally the teleprinter output was reproduced directly, thus avoiding any copying errors and saving considerable time.

REFERENCES

No.	Author	Title, etc
1	Bullen, N.I.	The combination of statistical distributions of random loads. A.R.C. 25,175, March 1963.
2	-	British Association Mathematical Tables Vol.X. Bessel Functions Part II. Cambridge University Press.

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x	$k_{\frac{1}{2}}(x)$	log	x	$k_{\frac{1}{2}}(x)$	log
0.1	9.0484, -1	0.95657	5.1	6.0967, -3	0.78510
0.2	8.1873, -1	0.91314	5.2	5.5166, -3	0.74167
0.3	7.4082, -1	0.86971	5.3	4.9916, -3	0.69824
0.4	6.7032, -1	0.82628	5.4	4.5166, -3	0.65481
0.5	6.0653, -1	0.78285	5.5	4.0868, -3	0.61138
0.6	5.4881, -1	0.73942	5.6	3.6979, -3	0.56795
0.7	4.9659, -1	0.69599	5.7	3.3460, -3	0.52452
0.8	4.4933, -1	0.65256	5.8	3.0276, -3	0.48109
0.9	4.0657, -1	0.60913	5.9	2.7394, -3	0.43766
1.0	3.6788, -1	0.56571	6.0	2.4788, -3	0.39423
1.1	3.3287, -1	0.52228	6.1	2.2429, -3	0.35080
1.2	3.0119, -1	0.47885	6.2	2.0294, -3	0.30737
1.3	2.7253, -1	0.43542	6.3	1.8363, -3	0.26394
1.4	2.4660, -1	0.39199	6.4	1.6616, -3	0.22052
1.5	2.2313, -1	0.34856	6.5	1.5034, -3	0.17709
1.6	2.0190, -1	0.30513	6.6	1.3604, -3	0.13366
1.7	1.8268, -1	0.26170	6.7	1.2309, -3	0.09023
1.8	1.6530, -1	0.21827	6.8	1.1138, -3	0.04680
1.9	1.4957, -1	0.17484	6.9	1.0078, -3	0.00337
2.0	1.3534, -1	0.13141	7.0	9.1188, -4	0.95994
2.1	1.2246, -1	0.08798	7.1	8.2510, -4	0.91651
2.2	1.1080, -1	0.04455	7.2	7.4659, -4	0.87308
2.3	1.0026, -1	0.00112	7.3	6.7554, -4	0.82965
2.4	9.0718, -2	0.95769	7.4	6.1125, -4	0.78622
2.5	8.2085, -2	0.91426	7.5	5.5308, -4	0.74279
2.6	7.4274, -2	0.87083	7.6	5.0045, -4	0.69936
2.7	6.7206, -2	0.82740	7.7	4.5283, -4	0.65593
2.8	6.0810, -2	0.78398	7.8	4.0973, -4	0.61250
2.9	5.5023, -2	0.74055	7.9	3.7074, -4	0.56907
3.0	4.9787, -2	0.69712	8.0	3.3546, -4	0.52564
3.1	4.5049, -2	0.65369	8.1	3.0354, -4	0.48221
3.2	4.0762, -2	0.61026	8.2	2.7465, -4	0.43879
3.3	3.6883, -2	0.56683	8.3	2.4852, -4	0.39536
3.4	3.3373, -2	0.52340	8.4	2.2487, -4	0.35193
3.5	3.0197, -2	0.47997	8.5	2.0347, -4	0.30850
3.6	2.7324, -2	0.43654	8.6	1.8411, -4	0.26507
3.7	2.4724, -2	0.39311	8.7	1.6659, -4	0.22164
3.8	2.2371, -2	0.34968	8.8	1.5073, -4	0.17821
3.9	2.0242, -2	0.30625	8.9	1.3639, -4	0.13478
4.0	1.8316, -2	0.26282	9.0	1.2341, -4	0.09135
4.1	1.6573, -2	0.21939	9.1	1.1167, -4	0.04792
4.2	1.4996, -2	0.17596	9.2	1.0104, -4	0.00449
4.3	1.3569, -2	0.13253	9.3	9.1424, -5	0.96106
4.4	1.2277, -2	0.08910	9.4	8.2724, -5	0.91763
4.5	1.1109, -2	0.04567	9.5	7.4852, -5	0.87420
4.6	1.0052, -2	0.00225	9.6	6.7729, -5	0.83077
4.7	9.0953, -3	0.95882	9.7	6.1283, -5	0.78734
4.8	8.2297, -3	0.91539	9.8	5.5452, -5	0.74391
4.9	7.4466, -3	0.87196	9.9	5.0175, -5	0.70048
5.0	6.7379, -3	0.82853	10.0	4.5400, -5	0.65706

x	$k_{\frac{1}{2}}(x)$	log	x	$k_{\frac{1}{2}}(x)$	log
10.1	4.1080, -5	0.61363	15.1	2.7679, -7	0.44215
10.2	3.7170, -5	0.57020	15.2	2.5045, -7	0.39872
10.3	3.3633, -5	0.52677	15.3	2.2662, -7	0.35529
10.4	3.0432, -5	0.48334	15.4	2.0505, -7	0.31186
10.5	2.7536, -5	0.43991	15.5	1.8554, -7	0.26844
10.6	2.4916, -5	0.39648	15.6	1.6788, -7	0.22501
10.7	2.2545, -5	0.35305	15.7	1.5191, -7	0.18158
10.8	2.0400, -5	0.30962	15.8	1.3745, -7	0.13815
10.9	1.8458, -5	0.26619	15.9	1.2437, -7	0.09472
11.0	1.6702, -5	0.22276	16.0	1.1254, -7	0.05129
11.1	1.5112, -5	0.17933	16.1	1.0183, -7	0.00786
11.2	1.3674, -5	0.13590	16.2	9.2136, -8	0.96443
11.3	1.2373, -5	0.09247	16.3	8.3368, -8	0.92100
11.4	1.1195, -5	0.04904	16.4	7.5435, -8	0.87757
11.5	1.0130, -5	0.00561	16.5	6.8256, -8	0.83414
11.6	9.1661, -6	0.96218	16.6	6.1761, -8	0.79071
11.7	8.2938, -6	0.91875	16.7	5.5883, -8	0.74728
11.8	7.5046, -6	0.87533	16.8	5.0565, -8	0.70385
11.9	6.7904, -6	0.83190	16.9	4.5753, -8	0.66042
12.0	6.1442, -6	0.78847	17.0	4.1399, -8	0.61699
12.1	5.5595, -6	0.74504	17.1	3.7460, -8	0.57356
12.2	5.0305, -6	0.70161	17.2	3.3895, -8	0.53013
12.3	4.5517, -6	0.65818	17.3	3.0669, -8	0.48671
12.4	4.1186, -6	0.61475	17.4	2.7751, -8	0.44328
12.5	3.7267, -6	0.57132	17.5	2.5110, -8	0.39985
12.6	3.3720, -6	0.52789	17.6	2.2720, -8	0.35642
12.7	3.0511, -6	0.48446	17.7	2.0558, -8	0.31299
12.8	2.7608, -6	0.44103	17.8	1.8602, -8	0.26956
12.9	2.4981, -6	0.39760	17.9	1.6832, -8	0.22613
13.0	2.2603, -6	0.35417	18.0	1.5230, -8	0.18270
13.1	2.0452, -6	0.31074	18.1	1.3781, -8	0.13927
13.2	1.8506, -6	0.26731	18.2	1.2469, -8	0.09584
13.3	1.6745, -6	0.22388	18.3	1.1283, -8	0.05241
13.4	1.5151, -6	0.18045	18.4	1.0209, -8	0.00898
13.5	1.3710, -6	0.13702	18.5	9.2374, -9	0.96555
13.6	1.2405, -6	0.09360	18.6	8.3584, -9	0.92212
13.7	1.1224, -6	0.05017	18.7	7.5630, -9	0.87869
13.8	1.0156, -6	0.00674	18.8	6.8433, -9	0.83526
13.9	9.1898, -7	0.96331	18.9	6.1920, -9	0.79183
14.0	8.3153, -7	0.91988	19.0	5.6028, -9	0.74840
14.1	7.5240, -7	0.87645	19.1	5.0696, -9	0.70498
14.2	6.8080, -7	0.83302	19.2	4.5872, -9	0.66155
14.3	6.1601, -7	0.78959	19.3	4.1507, -9	0.61812
14.4	5.5739, -7	0.74616	19.4	3.7557, -9	0.57469
14.5	5.0435, -7	0.70273	19.5	3.3983, -9	0.53126
14.6	4.5635, -7	0.65930	19.6	3.0749, -9	0.48783
14.7	4.1292, -7	0.61587	19.7	2.7823, -9	0.44440
14.8	3.7363, -7	0.57244	19.8	2.5175, -9	0.40097
14.9	3.3807, -7	0.52901	19.9	2.2779, -9	0.35754
15.0	3.0590, -7	0.48558	20.0	2.0612, -9	0.31411

x	$k_1(x)$	log	x	$k_1(x)$	log
0.1	9.8538, -1	0.99361	5.1	1.8458, -2	0.26618
0.2	9.5519, -1	0.98009	5.2	1.6844, -2	0.22645
0.3	9.1680, -1	0.96227	5.3	1.5369, -2	0.18666
0.4	8.7374, -1	0.94138	5.4	1.4022, -2	0.14680
0.5	8.2822, -1	0.91815	5.5	1.2791, -2	0.10689
0.6	7.8170, -1	0.89304	5.6	1.1666, -2	0.06692
0.7	7.3520, -1	0.86640	5.7	1.0639, -2	0.02690
0.8	6.8943, -1	0.83849	5.8	9.7012, -3	0.98683
0.9	6.4488, -1	0.80948	5.9	8.8451, -3	0.94670
1.0	6.0191, -1	0.77953	6.0	8.0635, -3	0.90652
1.1	5.6074, -1	0.74876	6.1	7.3502, -3	0.86630
1.2	5.2151, -1	0.71726	6.2	6.6993, -3	0.82603
1.3	4.8431, -1	0.68513	6.3	6.1054, -3	0.78571
1.4	4.4917, -1	0.65241	6.4	5.5636, -3	0.74535
1.5	4.1608, -1	0.61918	6.5	5.0693, -3	0.70495
1.6	3.8501, -1	0.58548	6.6	4.6185, -3	0.66450
1.7	3.5592, -1	0.55135	6.7	4.2074, -3	0.62402
1.8	3.2872, -1	0.51683	6.8	3.8326, -3	0.58349
1.9	3.0335, -1	0.48195	6.9	3.4908, -3	0.54293
2.0	2.7973, -1	0.44674	7.0	3.1793, -3	0.50233
2.1	2.5777, -1	0.41123	7.1	2.8953, -3	0.46169
2.2	2.3737, -1	0.37543	7.2	2.6364, -3	0.42102
2.3	2.1846, -1	0.33937	7.3	2.4005, -3	0.38031
2.4	2.0094, -1	0.30307	7.4	2.1856, -3	0.33957
2.5	1.8473, -1	0.26653	7.5	1.9897, -3	0.29879
2.6	1.6974, -1	0.22978	7.6	1.8113, -3	0.25799
2.7	1.5589, -1	0.19283	7.7	1.6487, -3	0.21715
2.8	1.4312, -1	0.15569	7.8	1.5007, -3	0.17628
2.9	1.3133, -1	0.11837	7.9	1.3658, -3	0.13538
3.0	1.2047, -1	0.08088	8.0	1.2430, -3	0.09445
3.1	1.1047, -1	0.04323	8.1	1.1311, -3	0.05350
3.2	1.0126, -1	0.00543	8.2	1.0292, -3	0.01251
3.3	9.2786, -2	0.96748	8.3	9.3649, -4	0.97150
3.4	8.4997, -2	0.92940	8.4	8.5205, -4	0.93046
3.5	7.7838, -2	0.89119	8.5	7.7518, -4	0.88940
3.6	7.1262, -2	0.85286	8.6	7.0520, -4	0.84831
3.7	6.5224, -2	0.81441	8.7	6.4150, -4	0.80720
3.8	5.9682, -2	0.77584	8.8	5.8352, -4	0.76606
3.9	5.4597, -2	0.73717	8.9	5.3075, -4	0.72489
4.0	4.9934, -2	0.69840	9.0	4.8273, -4	0.68371
4.1	4.5659, -2	0.65952	9.1	4.3903, -4	0.64250
4.2	4.1740, -2	0.62056	9.2	3.9927, -4	0.60127
4.3	3.8150, -2	0.58150	9.3	3.6309, -4	0.56001
4.4	3.4862, -2	0.54236	9.4	3.3017, -4	0.51874
4.5	3.1851, -2	0.50313	9.5	3.0022, -4	0.47744
4.6	2.9095, -2	0.46382	9.6	2.7297, -4	0.43612
4.7	2.6573, -2	0.42444	9.7	2.4819, -4	0.39478
4.8	2.4265, -2	0.38498	9.8	2.2564, -4	0.35342
4.9	2.2154, -2	0.34545	9.9	2.0514, -4	0.31205
5.0	2.0223, -2	0.30585	10.0	1.8649, -4	0.27065

x	$k_1(x)$	log	x	$k_1(x)$	log
10.1	1.6953, -4	0.22923	15.1	1.3809, -6	0.14015
10.2	1.5410, -4	0.18780	15.2	1.2534, -6	0.09809
10.3	1.4007, -4	0.14635	15.3	1.1377, -6	0.05602
10.4	1.2731, -4	0.10488	15.4	1.0326, -6	0.01394
10.5	1.1571, -4	0.06339	15.5	9.3723, -7	0.97185
10.6	1.0517, -4	0.02188	15.6	8.5065, -7	0.92975
10.7	9.5579, -5	0.98036	15.7	7.7205, -7	0.88765
10.8	8.6861, -5	0.93882	15.8	7.0070, -7	0.84553
10.9	7.8935, -5	0.89727	15.9	6.3594, -7	0.80341
11.0	7.1729, -5	0.85570	16.0	5.7715, -7	0.76129
11.1	6.5179, -5	0.81411	16.1	5.2378, -7	0.71915
11.2	5.9225, -5	0.77251	16.2	4.7534, -7	0.67701
11.3	5.3813, -5	0.73089	16.3	4.3137, -7	0.63485
11.4	4.8894, -5	0.68926	16.4	3.9147, -7	0.59270
11.5	4.4423, -5	0.64761	16.5	3.5525, -7	0.55053
11.6	4.0360, -5	0.60595	16.6	3.2237, -7	0.50836
11.7	3.6667, -5	0.56427	16.7	2.9253, -7	0.46617
11.8	3.3311, -5	0.52258	16.8	2.6545, -7	0.42399
11.9	3.0261, -5	0.48088	16.9	2.4088, -7	0.38179
12.0	2.7489, -5	0.43916	17.0	2.1857, -7	0.33959
12.1	2.4971, -5	0.39743	17.1	1.9833, -7	0.29738
12.2	2.2682, -5	0.35568	17.2	1.7996, -7	0.25517
12.3	2.0603, -5	0.31393	17.3	1.6328, -7	0.21294
12.4	1.8714, -5	0.27216	17.4	1.4815, -7	0.17071
12.5	1.6997, -5	0.23037	17.5	1.3442, -7	0.12848
12.6	1.5438, -5	0.18858	17.6	1.2197, -7	0.08624
12.7	1.4021, -5	0.14677	17.7	1.1066, -7	0.04399
12.8	1.2734, -5	0.10495	17.8	1.0040, -7	0.00173
12.9	1.1564, -5	0.06312	17.9	9.1090, -8	0.95947
13.0	1.0502, -5	0.02128	18.0	8.2642, -8	0.91720
13.1	9.5373, -6	0.97942	18.1	7.4977, -8	0.87493
13.2	8.6608, -6	0.93756	18.2	6.8022, -8	0.83265
13.3	7.8647, -6	0.89568	18.3	6.1711, -8	0.79036
13.4	7.1416, -6	0.85379	18.4	5.5985, -8	0.74807
13.5	6.4848, -6	0.81189	18.5	5.0789, -8	0.70577
13.6	5.8882, -6	0.76999	18.6	4.6075, -8	0.66347
13.7	5.3464, -6	0.72807	18.7	4.1798, -8	0.62116
13.8	4.8544, -6	0.68613	18.8	3.7918, -8	0.57884
13.9	4.4075, -6	0.64419	18.9	3.4397, -8	0.53652
14.0	4.0017, -6	0.60224	19.0	3.1203, -8	0.49420
14.1	3.6331, -6	0.56028	19.1	2.8305, -8	0.45187
14.2	3.2985, -6	0.51831	19.2	2.5676, -8	0.40953
14.3	2.9945, -6	0.47633	19.3	2.3291, -8	0.36718
14.4	2.7186, -6	0.43434	19.4	2.1127, -8	0.32484
14.5	2.4680, -6	0.39234	19.5	1.9164, -8	0.28248
14.6	2.2404, -6	0.35033	19.6	1.7383, -8	0.24012
14.7	2.0338, -6	0.30831	19.7	1.5767, -8	0.19776
14.8	1.8462, -6	0.26629	19.8	1.4302, -8	0.15539
14.9	1.6759, -6	0.22425	19.9	1.2972, -8	0.11301
15.0	1.5213, -6	0.18220	20.0	1.1766, -8	0.07063

x	$k_{1\frac{1}{2}}(x)$	log	x	$k_{1\frac{1}{2}}(x)$	log
0.1	9.9532, -1	0.99796	5.1	3.7190, -2	0.57043
0.2	9.8248, -1	0.99232	5.2	3.4203, -2	0.53406
0.3	9.6306, -1	0.98366	5.3	3.1447, -2	0.49758
0.4	9.3845, -1	0.97241	5.4	2.8906, -2	0.46099
0.5	9.0980, -1	0.95894	5.5	2.6564, -2	0.42429
0.6	8.7810, -1	0.94354	5.6	2.4406, -2	0.38749
0.7	8.4420, -1	0.92644	5.7	2.2418, -2	0.35060
0.8	8.0879, -1	0.90784	5.8	2.0587, -2	0.31360
0.9	7.7248, -1	0.88789	5.9	1.8902, -2	0.27651
1.0	7.3576, -1	0.86674	6.0	1.7351, -2	0.23933
1.1	6.9903, -1	0.84450	6.1	1.5924, -2	0.20206
1.2	6.6263, -1	0.82127	6.2	1.4612, -2	0.16471
1.3	6.2682, -1	0.79715	6.3	1.3405, -2	0.12727
1.4	5.9183, -1	0.77220	6.4	1.2296, -2	0.08975
1.5	5.5783, -1	0.74650	6.5	1.1276, -2	0.05215
1.6	5.2493, -1	0.72010	6.6	1.0339, -2	0.01447
1.7	4.9325, -1	0.69306	6.7	9.4780, -3	0.97672
1.8	4.6284, -1	0.66543	6.8	8.6874, -3	0.93889
1.9	4.3375, -1	0.63724	6.9	7.9615, -3	0.90100
2.0	4.0601, -1	0.60853	7.0	7.2951, -3	0.86303
2.1	3.7961, -1	0.57934	7.1	6.6833, -3	0.82499
2.2	3.5457, -1	0.54970	7.2	6.1220, -3	0.78689
2.3	3.3085, -1	0.51964	7.3	5.6070, -3	0.74873
2.4	3.0844, -1	0.48917	7.4	5.1345, -3	0.71050
2.5	2.8730, -1	0.45833	7.5	4.7012, -3	0.67221
2.6	2.6738, -1	0.42714	7.6	4.3039, -3	0.63386
2.7	2.4866, -1	0.39561	7.7	3.9396, -3	0.59545
2.8	2.3108, -1	0.36376	7.8	3.6057, -3	0.55699
2.9	2.1459, -1	0.33161	7.9	3.2996, -3	0.51846
3.0	1.9915, -1	0.29918	8.0	3.0192, -3	0.47989
3.1	1.8470, -1	0.26647	8.1	2.7622, -3	0.44126
3.2	1.7120, -1	0.23351	8.2	2.5268, -3	0.40257
3.3	1.5860, -1	0.20030	8.3	2.3112, -3	0.36384
3.4	1.4684, -1	0.16685	8.4	2.1138, -3	0.32505
3.5	1.3589, -1	0.13318	8.5	1.9329, -3	0.28622
3.6	1.2569, -1	0.09930	8.6	1.7674, -3	0.24734
3.7	1.1620, -1	0.06521	8.7	1.6159, -3	0.20841
3.8	1.0738, -1	0.03092	8.8	1.4772, -3	0.16943
3.9	9.9185, -2	0.99645	8.9	1.3503, -3	0.13041
4.0	9.1578, -2	0.96179	9.0	1.2341, -3	0.09135
4.1	8.4521, -2	0.92696	9.1	1.1278, -3	0.05224
4.2	7.7977, -2	0.89197	9.2	1.0306, -3	0.01309
4.3	7.1913, -2	0.85681	9.3	9.4167, -4	0.97390
4.4	6.6298, -2	0.82150	9.4	8.6033, -4	0.93467
4.5	6.1099, -2	0.78604	9.5	7.8594, -4	0.89539
4.6	5.6290, -2	0.75043	9.6	7.1792, -4	0.85608
4.7	5.1843, -2	0.71469	9.7	6.5573, -4	0.81673
4.8	4.7733, -2	0.67881	9.8	5.9888, -4	0.77734
4.9	4.3935, -2	0.64281	9.9	5.4690, -4	0.73791
5.0	4.0428, -2	0.60668	10.0	4.9940, -4	0.69845

x	$k_{1\frac{1}{2}}(x)$	log	x	$k_{1\frac{1}{2}}(x)$	log
10.1	4.5598, -4	0.65895	15.1	4.4563, -6	0.64898
10.2	4.1631, -4	0.61941	15.2	4.0573, -6	0.60824
10.3	3.8005, -4	0.57985	15.3	3.6939, -6	0.56748
10.4	3.4693, -4	0.54024	15.4	3.3629, -6	0.52671
10.5	3.1667, -4	0.50061	15.5	3.0614, -6	0.48592
10.6	2.8903, -4	0.46094	15.6	2.7869, -6	0.44511
10.7	2.6378, -4	0.42123	15.7	2.5368, -6	0.40429
10.8	2.4071, -4	0.38150	15.8	2.3092, -6	0.36346
10.9	2.1965, -4	0.34174	15.9	2.1019, -6	0.32260
11.0	2.0042, -4	0.30194	16.0	1.9131, -6	0.28174
11.1	1.8286, -4	0.26212	16.1	1.7412, -6	0.24085
11.2	1.6683, -4	0.22226	16.2	1.5847, -6	0.19996
11.3	1.5219, -4	0.18238	16.3	1.4423, -6	0.15905
11.4	1.3882, -4	0.14246	16.4	1.3126, -6	0.11812
11.5	1.2663, -4	0.10252	16.5	1.1945, -6	0.07718
11.6	1.1549, -4	0.06255	16.6	1.0870, -6	0.03622
11.7	1.0533, -4	0.02256	16.7	9.8913, -7	0.99526
11.8	9.6058, -5	0.98254	16.8	9.0006, -7	0.95427
11.9	8.7596, -5	0.94249	16.9	8.1899, -7	0.91328
12.0	7.9875, -5	0.90241	17.0	7.4519, -7	0.87227
12.1	7.2830, -5	0.86231	17.1	6.7802, -7	0.83124
12.2	6.6402, -5	0.82218	17.2	6.1689, -7	0.79021
12.3	6.0538, -5	0.78203	17.3	5.6125, -7	0.74915
12.4	5.5189, -5	0.74185	17.4	5.1062, -7	0.70809
12.5	5.0310, -5	0.70165	17.5	4.6453, -7	0.66702
12.6	4.5859, -5	0.66143	17.6	4.2260, -7	0.62593
12.7	4.1800, -5	0.62118	17.7	3.8444, -7	0.58483
12.8	3.8099, -5	0.58091	17.8	3.4972, -7	0.54372
12.9	3.4723, -5	0.54062	17.9	3.1812, -7	0.50259
13.0	3.1645, -5	0.50030	18.0	2.8937, -7	0.46145
13.1	2.8838, -5	0.45996	18.1	2.6321, -7	0.42030
13.2	2.6279, -5	0.41960	18.2	2.3941, -7	0.37914
13.3	2.3945, -5	0.37922	18.3	2.1776, -7	0.33797
13.4	2.1818, -5	0.33882	18.4	1.9805, -7	0.29678
13.5	1.9879, -5	0.29839	18.5	1.8013, -7	0.25559
13.6	1.8111, -5	0.25795	18.6	1.6382, -7	0.21438
13.7	1.6500, -5	0.21748	18.7	1.4899, -7	0.17316
13.8	1.5031, -5	0.17700	18.8	1.3550, -7	0.13193
13.9	1.3693, -5	0.13649	18.9	1.2322, -7	0.09069
14.0	1.2473, -5	0.09597	19.0	1.1206, -7	0.04943
14.1	1.1361, -5	0.05542	19.1	1.0190, -7	0.00817
14.2	1.0348, -5	0.01486	19.2	9.2661, -8	0.96690
14.3	9.4250, -6	0.97428	19.3	8.4258, -8	0.92561
14.4	8.5838, -6	0.93368	19.4	7.6616, -8	0.88432
14.5	7.8174, -6	0.89306	19.5	6.9664, -8	0.84301
14.6	7.1191, -6	0.85243	19.6	6.3343, -8	0.80170
14.7	6.4829, -6	0.81177	19.7	5.7593, -8	0.76037
14.8	5.9034, -6	0.77110	19.8	5.2364, -8	0.71903
14.9	5.3754, -6	0.73041	19.9	4.7609, -8	0.67769
15.0	4.8944, -6	0.68970	20.0	4.3284, -8	0.63633

x	$k_2(x)$	log	x	$k_2(x)$	log
0.1	9.9752, -1	0.99892	5.1	6.1482, -2	0.78875
0.2	9.9025, -1	0.99574	5.2	5.6941, -2	0.75543
0.3	9.7856, -1	0.99059	5.3	5.2717, -2	0.72195
0.4	9.6290, -1	0.98358	5.4	4.8789, -2	0.68832
0.5	9.4377, -1	0.97487	5.5	4.5139, -2	0.65455
0.6	9.2165, -1	0.96457	5.6	4.1748, -2	0.62064
0.7	8.9703, -1	0.95280	5.7	3.8600, -2	0.58659
0.8	8.7034, -1	0.93969	5.8	3.5679, -2	0.55241
0.9	8.4201, -1	0.92532	5.9	3.2968, -2	0.51810
1.0	8.1242, -1	0.90978	6.0	3.0455, -2	0.48366
1.1	7.8193, -1	0.89317	6.1	2.8126, -2	0.44911
1.2	7.5084, -1	0.87555	6.2	2.5968, -2	0.41443
1.3	7.1943, -1	0.85699	6.3	2.3969, -2	0.37964
1.4	6.8795, -1	0.83756	6.4	2.2118, -2	0.34474
1.5	6.5661, -1	0.81731	6.5	2.0405, -2	0.30973
1.6	6.2560, -1	0.79629	6.6	1.8820, -2	0.27461
1.7	5.9506, -1	0.77456	6.7	1.7353, -2	0.23939
1.8	5.6513, -1	0.75215	6.8	1.5998, -2	0.20406
1.9	5.3592, -1	0.72910	6.9	1.4745, -2	0.16864
2.0	5.0752, -1	0.70545	7.0	1.3587, -2	0.13312
2.1	4.8000, -1	0.68124	7.1	1.2517, -2	0.09750
2.2	4.5340, -1	0.65649	7.2	1.1529, -2	0.06179
2.3	4.2778, -1	0.63123	7.3	1.0617, -2	0.02600
2.4	4.0317, -1	0.60548	7.4	9.7749, -3	0.99011
2.5	3.7956, -1	0.57928	7.5	8.9979, -3	0.95414
2.6	3.5698, -1	0.55265	7.6	8.2810, -3	0.91808
2.7	3.3543, -1	0.52560	7.7	7.6198, -3	0.88195
2.8	3.1489, -1	0.49816	7.8	7.0101, -3	0.84573
2.9	2.9535, -1	0.47034	7.9	6.4481, -3	0.80943
3.0	2.7680, -1	0.44216	8.0	5.9300, -3	0.77306
3.1	2.5920, -1	0.41364	8.1	5.4526, -3	0.73661
3.2	2.4254, -1	0.38479	8.2	5.0128, -3	0.70008
3.3	2.2679, -1	0.35563	8.3	4.6077, -3	0.66349
3.4	2.1191, -1	0.32616	8.4	4.2347, -3	0.62682
3.5	1.9788, -1	0.29640	8.5	3.8912, -3	0.59009
3.6	1.8466, -1	0.26637	8.6	3.5751, -3	0.55328
3.7	1.7222, -1	0.23607	8.7	3.2841, -3	0.51641
3.8	1.6052, -1	0.20552	8.8	3.0163, -3	0.47948
3.9	1.4953, -1	0.17471	8.9	2.7700, -3	0.44248
4.0	1.3921, -1	0.14367	9.0	2.5434, -3	0.40542
4.1	1.2954, -1	0.11241	9.1	2.3351, -3	0.36830
4.2	1.2048, -1	0.08092	9.2	2.1434, -3	0.33111
4.3	1.1200, -1	0.04921	9.3	1.9673, -3	0.29387
4.4	1.0407, -1	0.01731	9.4	1.8054, -3	0.25657
4.5	9.6650, -2	0.98520	9.5	1.6566, -3	0.21921
4.6	8.9723, -2	0.95290	9.6	1.5198, -3	0.18180
4.7	8.3257, -2	0.92042	9.7	1.3942, -3	0.14433
4.8	7.7225, -2	0.88776	9.8	1.2788, -3	0.10681
4.9	7.1602, -2	0.85492	9.9	1.1728, -3	0.06923
5.0	6.6362, -2	0.82192	10.0	1.0755, -3	0.03161

x	$k_2(x)$	log	x	$k_2(x)$	log
10.1	9.8612, -4	0.99393	15.1	1.1477, -5	0.05984
10.2	9.0407, -4	0.95620	15.2	1.0480, -5	0.02038
10.3	8.2875, -4	0.91842	15.3	9.5695, -6	0.98089
10.4	7.5962, -4	0.88060	15.4	8.7374, -6	0.94138
10.5	6.9618, -4	0.84272	15.5	7.9771, -6	0.90185
10.6	6.3797, -4	0.80480	15.6	7.2827, -6	0.86229
10.7	5.8457, -4	0.76683	15.7	6.6483, -6	0.82271
10.8	5.3558, -4	0.72882	15.8	6.0689, -6	0.78311
10.9	4.9064, -4	0.69076	15.9	5.5397, -6	0.74349
11.0	4.4943, -4	0.65266	16.0	5.0564, -6	0.70384
11.1	4.1164, -4	0.61452	16.1	4.6150, -6	0.66417
11.2	3.7699, -4	0.57633	16.2	4.2120, -6	0.62448
11.3	3.4523, -4	0.53811	16.3	3.8439, -6	0.58477
11.4	3.1611, -4	0.49984	16.4	3.5079, -6	0.54504
11.5	2.8942, -4	0.46153	16.5	3.2010, -6	0.50529
11.6	2.6496, -4	0.42318	16.6	2.9209, -6	0.46552
11.7	2.4254, -4	0.38479	16.7	2.6652, -6	0.42572
11.8	2.2200, -4	0.34636	16.8	2.4317, -6	0.38591
11.9	2.0319, -4	0.30790	16.9	2.2186, -6	0.34607
12.0	1.8595, -4	0.26939	17.0	2.0240, -6	0.30622
12.1	1.7016, -4	0.23085	17.1	1.8465, -6	0.26635
12.2	1.5570, -4	0.19228	17.2	1.6844, -6	0.22646
12.3	1.4245, -4	0.15366	17.3	1.5365, -6	0.18654
12.4	1.3032, -4	0.11502	17.4	1.4016, -6	0.14661
12.5	1.1922, -4	0.07634	17.5	1.2784, -6	0.10667
12.6	1.0905, -4	0.03762	17.6	1.1660, -6	0.06670
12.7	9.9740, -5	0.99887	17.7	1.0634, -6	0.02671
12.8	9.1219, -5	0.96008	17.8	9.6986, -7	0.98671
12.9	8.3420, -5	0.92127	17.9	8.8448, -7	0.94669
13.0	7.6282, -5	0.88242	18.0	8.0658, -7	0.90665
13.1	6.9749, -5	0.84354	18.1	7.3551, -7	0.86659
13.2	6.3771, -5	0.80463	18.2	6.7068, -7	0.82652
13.3	5.8302, -5	0.76568	18.3	6.1154, -7	0.78643
13.4	5.3298, -5	0.72671	18.4	5.5759, -7	0.74632
13.5	4.8720, -5	0.68771	18.5	5.0838, -7	0.70619
13.6	4.4532, -5	0.64867	18.6	4.6350, -7	0.66605
13.7	4.0701, -5	0.60961	18.7	4.2256, -7	0.62589
13.8	3.7198, -5	0.57052	18.8	3.8523, -7	0.58572
13.9	3.3993, -5	0.53139	18.9	3.5118, -7	0.54553
14.0	3.1063, -5	0.49225	19.0	3.2012, -7	0.50532
14.1	2.8384, -5	0.45307	19.1	2.9181, -7	0.46510
14.2	2.5934, -5	0.41386	19.2	2.6599, -7	0.42486
14.3	2.3694, -5	0.37463	19.3	2.4244, -7	0.38460
14.4	2.1646, -5	0.33537	19.4	2.2097, -7	0.34433
14.5	1.9774, -5	0.29609	19.5	2.0140, -7	0.30405
14.6	1.8062, -5	0.25678	19.6	1.8355, -7	0.26375
14.7	1.6498, -5	0.21744	19.7	1.6728, -7	0.22343
14.8	1.5069, -5	0.17808	19.8	1.5244, -7	0.18311
14.9	1.3762, -5	0.13869	19.9	1.3892, -7	0.14276
15.0	1.2568, -5	0.09927	20.0	1.2659, -7	0.10240

x	$k_{2\frac{1}{2}}(x)$	log	x	$k_{2\frac{1}{2}}(x)$	log
0.1	9.9834, -1	0.99928	5.1	9.0049, -2	0.95448
0.2	9.9339, -1	0.99712	5.2	8.3925, -2	0.92389
0.3	9.8529, -1	0.99356	5.3	7.8185, -2	0.89312
0.4	9.7420, -1	0.98865	5.4	7.2807, -2	0.86217
0.5	9.6034, -1	0.98243	5.5	6.7772, -2	0.83105
0.6	9.4396, -1	0.97495	5.6	6.3061, -2	0.79976
0.7	9.2530, -1	0.96628	5.7	5.8655, -2	0.76830
0.8	9.0465, -1	0.95648	5.8	5.4536, -2	0.73669
0.9	8.8226, -1	0.94559	5.9	5.0689, -2	0.70491
1.0	8.5839, -1	0.93368	6.0	4.7096, -2	0.67299
1.1	8.3329, -1	0.92079	6.1	4.3743, -2	0.64091
1.2	8.0720, -1	0.90698	6.2	4.0616, -2	0.60869
1.3	7.8035, -1	0.89229	6.3	3.7699, -2	0.57633
1.4	7.5294, -1	0.87676	6.4	3.4981, -2	0.54384
1.5	7.2517, -1	0.86044	6.5	3.2449, -2	0.51120
1.6	6.9722, -1	0.84337	6.6	3.0091, -2	0.47844
1.7	6.6923, -1	0.82558	6.7	2.7897, -2	0.44555
1.8	6.4136, -1	0.80710	6.8	2.5854, -2	0.41254
1.9	6.1373, -1	0.78798	6.9	2.3955, -2	0.37940
2.0	5.8645, -1	0.76823	7.0	2.2189, -2	0.34614
2.1	5.5963, -1	0.74790	7.1	2.0548, -2	0.31277
2.2	5.3333, -1	0.72700	7.2	1.9023, -2	0.27928
2.3	5.0764, -1	0.70556	7.3	1.7607, -2	0.24568
2.4	4.8262, -1	0.68360	7.4	1.6292, -2	0.21197
2.5	4.5831, -1	0.66116	7.5	1.5072, -2	0.17816
2.6	4.3475, -1	0.63824	7.6	1.3939, -2	0.14424
2.7	4.1197, -1	0.61487	7.7	1.2889, -2	0.11022
2.8	3.9000, -1	0.59106	7.8	1.1915, -2	0.07610
2.9	3.6884, -1	0.56684	7.9	1.1012, -2	0.04188
3.0	3.4851, -1	0.54221	8.0	1.0176, -2	0.00756
3.1	3.2901, -1	0.51721	8.1	9.4006, -3	0.97316
3.2	3.1034, -1	0.49183	8.2	8.6827, -3	0.93866
3.3	2.9248, -1	0.46610	8.3	8.0180, -3	0.90407
3.4	2.7544, -1	0.44003	8.4	7.4026, -3	0.86939
3.5	2.5919, -1	0.41363	8.5	6.8331, -3	0.83462
3.6	2.4373, -1	0.38690	8.6	6.3062, -3	0.79977
3.7	2.2902, -1	0.35988	8.7	5.8188, -3	0.76484
3.8	2.1506, -1	0.33255	8.8	5.3681, -3	0.72982
3.9	2.0181, -1	0.30495	8.9	4.9514, -3	0.69473
4.0	1.8926, -1	0.27706	9.0	4.5662, -3	0.65955
4.1	1.7738, -1	0.24891	9.1	4.2102, -3	0.62430
4.2	1.6615, -1	0.22050	9.2	3.8813, -3	0.58897
4.3	1.5554, -1	0.19184	9.3	3.5774, -3	0.55357
4.4	1.4553, -1	0.16294	9.4	3.2968, -3	0.51810
4.5	1.3609, -1	0.13381	9.5	3.0377, -3	0.48255
4.6	1.2719, -1	0.10445	9.6	2.7986, -3	0.44693
4.7	1.1881, -1	0.07487	9.7	2.5778, -3	0.41125
4.8	1.1094, -1	0.04508	9.8	2.3741, -3	0.37549
4.9	1.0353, -1	0.01508	9.9	2.1861, -3	0.33967
5.0	9.6577, -2	0.98487	10.0	2.0127, -3	0.30379

x	$k_{2\frac{1}{2}}(x)$	log	x	$k_{2\frac{1}{2}}(x)$	log
10.1	1.8528, -3	0.26783	15.1	2.5493, -5	0.40643
10.2	1.7054, -3	0.23182	15.2	2.3345, -5	0.36820
10.3	1.5694, -3	0.19574	15.3	2.1377, -5	0.32994
10.4	1.4441, -3	0.15960	15.4	1.9573, -5	0.29166
10.5	1.3286, -3	0.12341	15.5	1.7920, -5	0.25334
10.6	1.2222, -3	0.08715	15.6	1.6406, -5	0.21499
10.7	1.1242, -3	0.05083	15.7	1.5018, -5	0.17661
10.8	1.0338, -3	0.01446	15.8	1.3747, -5	0.13821
10.9	9.5066, -4	0.97803	15.9	1.2583, -5	0.09977
11.0	8.7406, -4	0.94154	16.0	1.1516, -5	0.06131
11.1	8.0352, -4	0.90500	16.1	1.0539, -5	0.02281
11.2	7.3859, -4	0.86840	16.2	9.6448, -6	0.98429
11.3	6.7882, -4	0.83175	16.3	8.8256, -6	0.94575
11.4	6.2381, -4	0.79505	16.4	8.0755, -6	0.90717
11.5	5.7319, -4	0.75830	16.5	7.3887, -6	0.86857
11.6	5.2662, -4	0.72150	16.6	6.7599, -6	0.82994
11.7	4.8378, -4	0.68465	16.7	6.1842, -6	0.79129
11.8	4.4437, -4	0.64774	16.8	5.6572, -6	0.75261
11.9	4.0813, -4	0.61079	16.9	5.1749, -6	0.71390
12.0	3.7480, -4	0.57380	17.0	4.7333, -6	0.67517
12.1	3.4415, -4	0.53675	17.1	4.3292, -6	0.63641
12.2	3.1598, -4	0.49966	17.2	3.9594, -6	0.59763
12.3	2.9008, -4	0.46252	17.3	3.6209, -6	0.55882
12.4	2.6628, -4	0.42534	17.4	3.3112, -6	0.51999
12.5	2.4441, -4	0.38811	17.5	3.0278, -6	0.48113
12.6	2.2431, -4	0.35084	17.6	2.7686, -6	0.44225
12.7	2.0584, -4	0.31353	17.7	2.5313, -6	0.40335
12.8	1.8887, -4	0.27617	17.8	2.3143, -6	0.36443
12.9	1.7329, -4	0.23877	17.9	2.1158, -6	0.32548
13.0	1.5898, -4	0.20133	18.0	1.9342, -6	0.28650
13.1	1.4583, -4	0.16385	18.1	1.7681, -6	0.24751
13.2	1.3376, -4	0.12633	18.2	1.6162, -6	0.20849
13.3	1.2268, -4	0.08877	18.3	1.4772, -6	0.16945
13.4	1.1250, -4	0.05117	18.4	1.3502, -6	0.13039
13.5	1.0316, -4	0.01353	18.5	1.2340, -6	0.09130
13.6	9.4592, -5	0.97585	18.6	1.1277, -6	0.05220
13.7	8.6724, -5	0.93814	18.7	1.0306, -6	0.01307
13.8	7.9504, -5	0.90039	18.8	9.4173, -7	0.97392
13.9	7.2878, -5	0.86260	18.9	8.6051, -7	0.93476
14.0	6.6799, -5	0.82477	19.0	7.8626, -7	0.89557
14.1	6.1223, -5	0.78691	19.1	7.1838, -7	0.85636
14.2	5.6107, -5	0.74902	19.2	6.5633, -7	0.81712
14.3	5.1414, -5	0.71108	19.3	5.9962, -7	0.77787
14.4	4.7111, -5	0.67312	19.4	5.4778, -7	0.73860
14.5	4.3164, -5	0.63512	19.5	5.0039, -7	0.69931
14.6	3.9544, -5	0.59709	19.6	4.5709, -7	0.66000
14.7	3.6226, -5	0.55902	19.7	4.1752, -7	0.62067
14.8	3.3183, -5	0.52092	19.8	3.8135, -7	0.58132
14.9	3.0394, -5	0.48279	19.9	3.4830, -7	0.54196
15.0	2.7837, -5	0.44462	20.0	3.1810, -7	0.50257

x	$k_3(x)$	log	x	$k_3(x)$	log
0.1	9.9875, -1	0.99946	5.1	1.2149, -1	0.08455
0.2	9.9502, -1	0.99783	5.2	1.1387, -1	0.05643
0.3	9.8887, -1	0.99514	5.3	1.0668, -1	0.02809
0.4	9.8038, -1	0.99139	5.4	9.9898, -2	0.99956
0.5	9.6965, -1	0.98662	5.5	9.3503, -2	0.97083
0.6	9.5683, -1	0.98084	5.6	8.7479, -2	0.94190
0.7	9.4206, -1	0.97408	5.7	8.1808, -2	0.91279
0.8	9.2549, -1	0.96637	5.8	7.6472, -2	0.88350
0.9	9.0730, -1	0.95775	5.9	7.1456, -2	0.85404
1.0	8.8766, -1	0.94825	6.0	6.6741, -2	0.82439
1.1	8.6674, -1	0.93789	6.1	6.2314, -2	0.79458
1.2	8.4471, -1	0.92671	6.2	5.8158, -2	0.76461
1.3	8.2174, -1	0.91474	6.3	5.4259, -2	0.73447
1.4	7.9800, -1	0.90200	6.4	5.0603, -2	0.70418
1.5	7.7364, -1	0.88854	6.5	4.7177, -2	0.67373
1.6	7.4880, -1	0.87437	6.6	4.3967, -2	0.64313
1.7	7.2363, -1	0.85952	6.7	4.0962, -2	0.61239
1.8	6.9826, -1	0.84402	6.8	3.8150, -2	0.58150
1.9	6.7281, -1	0.82789	6.9	3.5520, -2	0.55047
2.0	6.4739, -1	0.81116	7.0	3.3060, -2	0.51930
2.1	6.2209, -1	0.79385	7.1	3.0761, -2	0.48800
2.2	5.9701, -1	0.77598	7.2	2.8613, -2	0.45657
2.3	5.7224, -1	0.75758	7.3	2.6607, -2	0.42500
2.4	5.4784, -1	0.73866	7.4	2.4735, -2	0.39332
2.5	5.2388, -1	0.71923	7.5	2.2988, -2	0.36150
2.6	5.0041, -1	0.69933	7.6	2.1359, -2	0.32957
2.7	4.7749, -1	0.67896	7.7	1.9839, -2	0.29752
2.8	4.5514, -1	0.65815	7.8	1.8423, -2	0.26535
2.9	4.3341, -1	0.63690	7.9	1.7103, -2	0.23307
3.0	4.1233, -1	0.61524	8.0	1.5874, -2	0.20068
3.1	3.9190, -1	0.59317	8.1	1.4729, -2	0.16817
3.2	3.7215, -1	0.57072	8.2	1.3664, -2	0.13556
3.3	3.5310, -1	0.54789	8.3	1.2672, -2	0.10285
3.4	3.3473, -1	0.52470	8.4	1.1750, -2	0.07003
3.5	3.1707, -1	0.50116	8.5	1.0892, -2	0.03711
3.6	3.0010, -1	0.47727	8.6	1.0095, -2	0.00409
3.7	2.8383, -1	0.45306	8.7	9.3535, -3	0.97097
3.8	2.6824, -1	0.42853	8.8	8.6648, -3	0.93776
3.9	2.5333, -1	0.40368	8.9	8.0251, -3	0.90445
4.0	2.3908, -1	0.37854	9.0	7.4311, -3	0.87105
4.1	2.2548, -1	0.35311	9.1	6.8796, -3	0.83756
4.2	2.1252, -1	0.32740	9.2	6.3677, -3	0.80398
4.3	2.0017, -1	0.30141	9.3	5.8927, -3	0.77032
4.4	1.8843, -1	0.27516	9.4	5.4521, -3	0.73656
4.5	1.7727, -1	0.24864	9.5	5.0434, -3	0.70273
4.6	1.6668, -1	0.22188	9.6	4.6645, -3	0.66881
4.7	1.5663, -1	0.19488	9.7	4.3132, -3	0.63480
4.8	1.4711, -1	0.16764	9.8	3.9877, -3	0.60072
4.9	1.3809, -1	0.14016	9.9	3.6860, -3	0.56656
5.0	1.2956, -1	0.11247	10.0	3.4066, -3	0.53232

x	$k_3(x)$	log	x	$k_3(x)$	log
10.1	3.1478, -3	0.49800	15.1	5.0833, -5	0.70615
10.2	2.9081, -3	0.46361	15.2	4.6678, -5	0.66911
10.3	2.6863, -3	0.42915	15.3	4.2859, -5	0.63204
10.4	2.4809, -3	0.39461	15.4	3.9349, -5	0.59493
10.5	2.2909, -3	0.36000	15.5	3.6123, -5	0.55779
10.6	2.1151, -3	0.32532	15.6	3.3159, -5	0.52061
10.7	1.9524, -3	0.29057	15.7	3.0436, -5	0.48339
10.8	1.8020, -3	0.25576	15.8	2.7934, -5	0.44614
10.9	1.6629, -3	0.22087	15.9	2.5636, -5	0.40885
11.0	1.5343, -3	0.18592	16.0	2.3525, -5	0.37153
11.1	1.4155, -3	0.15091	16.1	2.1586, -5	0.33418
11.2	1.3056, -3	0.11583	16.2	1.9806, -5	0.29679
11.3	1.2042, -3	0.08068	16.3	1.8170, -5	0.25936
11.4	1.1104, -3	0.04548	16.4	1.6669, -5	0.22191
11.5	1.0238, -3	0.01021	16.5	1.5290, -5	0.18442
11.6	9.4381, -4	0.97488	16.6	1.4025, -5	0.14690
11.7	8.6996, -4	0.93950	16.7	1.2863, -5	0.10935
11.8	8.0177, -4	0.90405	16.8	1.1797, -5	0.07177
11.9	7.3884, -4	0.86855	16.9	1.0818, -5	0.03415
12.0	6.8075, -4	0.83299	17.0	9.9199, -6	0.99651
12.1	6.2715, -4	0.79737	17.1	9.0956, -6	0.95883
12.2	5.7770, -4	0.76170	17.2	8.3392, -6	0.92112
12.3	5.3208, -4	0.72597	17.3	7.6452, -6	0.88339
12.4	4.9000, -4	0.69019	17.4	7.0085, -6	0.84562
12.5	4.5119, -4	0.65436	17.5	6.4243, -6	0.80783
12.6	4.1541, -4	0.61847	17.6	5.8885, -6	0.77000
12.7	3.8242, -4	0.58254	17.7	5.3970, -6	0.73215
12.8	3.5200, -4	0.54655	17.8	4.9462, -6	0.69427
12.9	3.2397, -4	0.51051	17.9	4.5327, -6	0.65636
13.0	2.9814, -4	0.47442	18.0	4.1536, -6	0.61842
13.1	2.7434, -4	0.43828	18.1	3.8059, -6	0.58046
13.2	2.5240, -4	0.40210	18.2	3.4871, -6	0.54247
13.3	2.3220, -4	0.36586	18.3	3.1948, -6	0.50445
13.4	2.1359, -4	0.32958	18.4	2.9269, -6	0.46640
13.5	1.9645, -4	0.29325	18.5	2.6812, -6	0.42833
13.6	1.8067, -4	0.25688	18.6	2.4560, -6	0.39023
13.7	1.6614, -4	0.22046	18.7	2.2496, -6	0.35211
13.8	1.5276, -4	0.18400	18.8	2.0604, -6	0.31396
13.9	1.4044, -4	0.14749	18.9	1.8871, -6	0.27579
14.0	1.2910, -4	0.11094	19.0	1.7282, -6	0.23758
14.1	1.1867, -4	0.07435	19.1	1.5826, -6	0.19936
14.2	1.0907, -4	0.03771	19.2	1.4491, -6	0.16111
14.3	1.0024, -4	0.00103	19.3	1.3269, -6	0.12283
14.4	9.2111, -5	0.96431	19.4	1.2149, -6	0.08454
14.5	8.4635, -5	0.92755	19.5	1.1123, -6	0.04621
14.6	7.7759, -5	0.89075	19.6	1.0183, -6	0.00786
14.7	7.1434, -5	0.85391	19.7	9.3217, -7	0.96949
14.8	6.5618, -5	0.81703	19.8	8.5330, -7	0.93110
14.9	6.0271, -5	0.78011	19.9	7.8106, -7	0.89268
15.0	5.5354, -5	0.74315	20.0	7.1490, -7	0.85424

x	$k_{3\frac{1}{2}}(x)$	log	x	$k_{3\frac{1}{2}}(x)$	log
0.1	9.9900, -1	0.99957	5.1	1.5454, -1	0.18903
0.2	9.9601, -1	0.99827	5.2	1.4558, -1	0.16311
0.3	9.9107, -1	0.99610	5.3	1.3707, -1	0.13696
0.4	9.8421, -1	0.99309	5.4	1.2900, -1	0.11059
0.5	9.7550, -1	0.98923	5.5	1.2134, -1	0.08401
0.6	9.6503, -1	0.98454	5.6	1.1409, -1	0.05723
0.7	9.5288, -1	0.97904	5.7	1.0721, -1	0.03024
0.8	9.3916, -1	0.97274	5.8	1.0071, -1	0.00306
0.9	9.2397, -1	0.96566	5.9	9.4554, -2	0.97568
1.0	9.0744, -1	0.95782	6.0	8.8739, -2	0.94812
1.1	8.8968, -1	0.94923	6.1	8.3246, -2	0.92037
1.2	8.7081, -1	0.93992	6.2	7.8061, -2	0.89243
1.3	8.5097, -1	0.92991	6.3	7.3169, -2	0.86433
1.4	8.3028, -1	0.91922	6.4	6.8556, -2	0.83605
1.5	8.0885, -1	0.90787	6.5	6.4209, -2	0.80760
1.6	7.8680, -1	0.89587	6.6	6.0115, -2	0.77898
1.7	7.6426, -1	0.88324	6.7	5.6261, -2	0.75021
1.8	7.4133, -1	0.87001	6.8	5.2635, -2	0.72127
1.9	7.1812, -1	0.85620	6.9	4.9225, -2	0.69218
2.0	6.9472, -1	0.84181	7.0	4.6020, -2	0.66294
2.1	6.7123, -1	0.82687	7.1	4.3008, -2	0.63355
2.2	6.4774, -1	0.81140	7.2	4.0181, -2	0.60402
2.3	6.2433, -1	0.79541	7.3	3.7526, -2	0.57434
2.4	6.0106, -1	0.77892	7.4	3.5036, -2	0.54452
2.5	5.7802, -1	0.76194	7.5	3.2701, -2	0.51456
2.6	5.5525, -1	0.74449	7.6	3.0512, -2	0.48447
2.7	5.3282, -1	0.72658	7.7	2.8461, -2	0.45425
2.8	5.1077, -1	0.70823	7.8	2.6540, -2	0.42390
2.9	4.8915, -1	0.68944	7.9	2.4741, -2	0.39342
3.0	4.6800, -1	0.67024	8.0	2.3057, -2	0.36281
3.1	4.4734, -1	0.65064	8.1	2.1482, -2	0.33208
3.2	4.2721, -1	0.63064	8.2	2.0010, -2	0.30124
3.3	4.0763, -1	0.61026	8.3	1.8633, -2	0.27027
3.4	3.8861, -1	0.58951	8.4	1.7346, -2	0.23919
3.5	3.7017, -1	0.56840	8.5	1.6144, -2	0.20800
3.6	3.5232, -1	0.54694	8.6	1.5021, -2	0.17669
3.7	3.3507, -1	0.52514	8.7	1.3973, -2	0.14528
3.8	3.1843, -1	0.50301	8.8	1.2994, -2	0.11375
3.9	3.0239, -1	0.48056	8.9	1.2082, -2	0.08212
4.0	2.8695, -1	0.45780	9.0	1.1230, -2	0.05039
4.1	2.7210, -1	0.43473	9.1	1.0437, -2	0.01856
4.2	2.5785, -1	0.41137	9.2	9.6966, -3	0.98662
4.3	2.4419, -1	0.38772	9.3	9.0071, -3	0.95458
4.4	2.3110, -1	0.36379	9.4	8.3647, -3	0.92245
4.5	2.1857, -1	0.33959	9.5	7.7665, -3	0.89023
4.6	2.0660, -1	0.31512	9.6	7.2095, -3	0.85790
4.7	1.9516, -1	0.29040	9.7	6.6910, -3	0.82549
4.8	1.8425, -1	0.26542	9.8	6.2085, -3	0.79299
4.9	1.7386, -1	0.24019	9.9	5.7596, -3	0.76039
5.0	1.6396, -1	0.21473	10.0	5.3421, -3	0.72771

x	$k_{3\frac{1}{2}}(x)$	log	x	$k_{3\frac{1}{2}}(x)$	log
10.1	4.9538, -3	0.69494	15.1	9.3233, -5	0.96957
10.2	4.5929, -3	0.66209	15.2	8.5839, -5	0.93368
10.3	4.2574, -3	0.62915	15.3	7.9023, -5	0.89776
10.4	3.9457, -3	0.59613	15.4	7.2742, -5	0.86179
10.5	3.6562, -3	0.56302	15.5	6.6953, -5	0.82577
10.6	3.3872, -3	0.52984	15.6	6.1619, -5	0.78972
10.7	3.1375, -3	0.49658	15.7	5.6705, -5	0.75362
10.8	2.9056, -3	0.46324	15.8	5.2178, -5	0.71748
10.9	2.6905, -3	0.42983	15.9	4.8007, -5	0.68131
11.0	2.4908, -3	0.39634	16.0	4.4166, -5	0.64509
11.1	2.3055, -3	0.36277	16.1	4.0629, -5	0.60883
11.2	2.1337, -3	0.32913	16.2	3.7371, -5	0.57254
11.3	1.9743, -3	0.29542	16.3	3.4372, -5	0.53621
11.4	1.8266, -3	0.26164	16.4	3.1611, -5	0.49983
11.5	1.6896, -3	0.22779	16.5	2.9069, -5	0.46342
11.6	1.5627, -3	0.19387	16.6	2.6729, -5	0.42698
11.7	1.4450, -3	0.15988	16.7	2.4575, -5	0.39049
11.8	1.3360, -3	0.12582	16.8	2.2593, -5	0.35397
11.9	1.2351, -3	0.09170	16.9	2.0769, -5	0.31741
12.0	1.1416, -3	0.05751	17.0	1.9091, -5	0.28082
12.1	1.0550, -3	0.02326	17.1	1.7547, -5	0.24419
12.2	9.7486, -4	0.98894	17.2	1.6126, -5	0.20753
12.3	9.0067, -4	0.95457	17.3	1.4819, -5	0.17083
12.4	8.3201, -4	0.92013	17.4	1.3617, -5	0.13410
12.5	7.6847, -4	0.88563	17.5	1.2512, -5	0.09733
12.6	7.0968, -4	0.85106	17.6	1.1496, -5	0.06053
12.7	6.5531, -4	0.81644	17.7	1.0561, -5	0.02370
12.8	6.0501, -4	0.78176	17.8	9.7013, -6	0.98683
12.9	5.5851, -4	0.74703	17.9	8.9111, -6	0.94993
13.0	5.1551, -4	0.71223	18.0	8.1846, -6	0.91300
13.1	4.7575, -4	0.67738	18.1	7.5168, -6	0.87603
13.2	4.3901, -4	0.64248	18.2	6.9030, -6	0.83904
13.3	4.0506, -4	0.60752	18.3	6.3388, -6	0.80201
13.4	3.7368, -4	0.57250	18.4	5.8204, -6	0.76495
13.5	3.4469, -4	0.53743	18.5	5.3439, -6	0.72786
13.6	3.1792, -4	0.50231	18.6	4.9062, -6	0.69074
13.7	2.9318, -4	0.46714	18.7	4.5039, -6	0.65359
13.8	2.7034, -4	0.43191	18.8	4.1344, -6	0.61641
13.9	2.4925, -4	0.39664	18.9	3.7949, -6	0.57920
14.0	2.2978, -4	0.36131	19.0	3.4831, -6	0.54196
14.1	2.1180, -4	0.32593	19.1	3.1966, -6	0.50469
14.2	1.9521, -4	0.29051	19.2	2.9336, -6	0.46740
14.3	1.7990, -4	0.25504	19.3	2.6920, -6	0.43007
14.4	1.6577, -4	0.21951	19.4	2.4701, -6	0.39272
14.5	1.5274, -4	0.18395	19.5	2.2664, -6	0.35533
14.6	1.4071, -4	0.14833	19.6	2.0793, -6	0.31792
14.7	1.2962, -4	0.11267	19.7	1.9076, -6	0.28049
14.8	1.1939, -4	0.07696	19.8	1.7499, -6	0.24302
14.9	1.0995, -4	0.04121	19.9	1.6052, -6	0.20553
15.0	1.0125, -4	0.00541	20.0	1.4724, -6	0.16801

x	$k_4(x)$	log	x	$k_4(x)$	log
0.1	9.9917, -1	0.99964	5.1	1.8812, -1	0.27445
0.2	9.9667, -1	0.99855	5.2	1.7803, -1	0.25049
0.3	9.9254, -1	0.99675	5.3	1.6838, -1	0.22630
0.4	9.8680, -1	0.99423	5.4	1.5918, -1	0.20188
0.5	9.7949, -1	0.99100	5.5	1.5040, -1	0.17724
0.6	9.7066, -1	0.98707	5.6	1.4203, -1	0.15238
0.7	9.6037, -1	0.98244	5.7	1.3406, -1	0.12731
0.8	9.4870, -1	0.97713	5.8	1.2648, -1	0.10203
0.9	9.3572, -1	0.97114	5.9	1.1927, -1	0.07654
1.0	9.2151, -1	0.96450	6.0	1.1242, -1	0.05086
1.1	9.0616, -1	0.95720	6.1	1.0592, -1	0.02498
1.2	8.8976, -1	0.94927	6.2	9.9749, -2	0.99891
1.3	8.7240, -1	0.94072	6.3	9.3897, -2	0.97265
1.4	8.5418, -1	0.93155	6.4	8.8351, -2	0.94621
1.5	8.3519, -1	0.92179	6.5	8.3098, -2	0.91959
1.6	8.1553, -1	0.91144	6.6	7.8125, -2	0.89279
1.7	7.9529, -1	0.90052	6.7	7.3421, -2	0.86582
1.8	7.7456, -1	0.88905	6.8	6.8973, -2	0.83868
1.9	7.5342, -1	0.87704	6.9	6.4769, -2	0.81137
2.0	7.3197, -1	0.86449	7.0	6.0800, -2	0.78390
2.1	7.1029, -1	0.85144	7.1	5.7052, -2	0.75627
2.2	6.8845, -1	0.83787	7.2	5.3516, -2	0.72848
2.3	6.6653, -1	0.82382	7.3	5.0181, -2	0.70054
2.4	6.4460, -1	0.80929	7.4	4.7038, -2	0.67245
2.5	6.2273, -1	0.79430	7.5	4.4077, -2	0.64421
2.6	6.0096, -1	0.77885	7.6	4.1288, -2	0.61583
2.7	5.7937, -1	0.76296	7.7	3.8663, -2	0.58730
2.8	5.5801, -1	0.74664	7.8	3.6193, -2	0.55863
2.9	5.3691, -1	0.72990	7.9	3.3871, -2	0.52982
3.0	5.1612, -1	0.71275	8.0	3.1687, -2	0.50088
3.1	4.9569, -1	0.69521	8.1	2.9635, -2	0.47181
3.2	4.7564, -1	0.67728	8.2	2.7708, -2	0.44260
3.3	4.5600, -1	0.65897	8.3	2.5898, -2	0.41327
3.4	4.3681, -1	0.64029	8.4	2.4200, -2	0.38381
3.5	4.1807, -1	0.62125	8.5	2.2606, -2	0.35423
3.6	3.9982, -1	0.60186	8.6	2.1112, -2	0.32452
3.7	3.8206, -1	0.58214	8.7	1.9711, -2	0.29470
3.8	3.6482, -1	0.56208	8.8	1.8398, -2	0.26476
3.9	3.4809, -1	0.54169	8.9	1.7167, -2	0.23470
4.0	3.3189, -1	0.52099	9.0	1.6015, -2	0.20453
4.1	3.1621, -1	0.49998	9.1	1.4936, -2	0.17425
4.2	3.0107, -1	0.47867	9.2	1.3927, -2	0.14386
4.3	2.8646, -1	0.45706	9.3	1.2982, -2	0.11335
4.4	2.7238, -1	0.43517	9.4	1.2099, -2	0.08275
4.5	2.5882, -1	0.41300	9.5	1.1273, -2	0.05203
4.6	2.4579, -1	0.39056	9.6	1.0501, -2	0.02122
4.7	2.3326, -1	0.36784	9.7	9.7792, -3	0.99030
4.8	2.2124, -1	0.34487	9.8	9.1051, -3	0.95928
4.9	2.0972, -1	0.32164	9.9	8.4756, -3	0.92817
5.0	1.9869, -1	0.29817	10.0	7.8878, -3	0.89696

x	$k_4(x)$	log	x	$k_4(x)$	log
10.1	7.3392, -3	0.86565	15.1	1.5987, -4	0.20377
10.2	6.8272, -3	0.83425	15.2	1.4757, -4	0.16899
10.3	6.3497, -3	0.80275	15.3	1.3620, -4	0.13417
10.4	5.9043, -3	0.77117	15.4	1.2569, -4	0.09930
10.5	5.4890, -3	0.73949	15.5	1.1598, -4	0.06438
10.6	5.1018, -3	0.70773	15.6	1.0701, -4	0.02941
10.7	4.7410, -3	0.67587	15.7	9.8717, -5	0.99439
10.8	4.4049, -3	0.64394	15.8	9.1061, -5	0.95933
10.9	4.0918, -3	0.61192	15.9	8.3990, -5	0.92423
11.0	3.8002, -3	0.57981	16.0	7.7460, -5	0.88908
11.1	3.5288, -3	0.54762	16.1	7.1430, -5	0.85388
11.2	3.2761, -3	0.51535	16.2	6.5863, -5	0.81864
11.3	3.0409, -3	0.48300	16.3	6.0724, -5	0.78336
11.4	2.8221, -3	0.45058	16.4	5.5980, -5	0.74804
11.5	2.6186, -3	0.41807	16.5	5.1602, -5	0.71267
11.6	2.4293, -3	0.38549	16.6	4.7562, -5	0.67726
11.7	2.2534, -3	0.35283	16.7	4.3833, -5	0.64180
11.8	2.0898, -3	0.32010	16.8	4.0394, -5	0.60631
11.9	1.9377, -3	0.28729	16.9	3.7220, -5	0.57078
12.0	1.7964, -3	0.25441	17.0	3.4293, -5	0.53520
12.1	1.6652, -3	0.22146	17.1	3.1593, -5	0.49959
12.2	1.5433, -3	0.18844	17.2	2.9103, -5	0.46393
12.3	1.4301, -3	0.15535	17.3	2.6807, -5	0.42824
12.4	1.3249, -3	0.12219	17.4	2.4689, -5	0.39251
12.5	1.2273, -3	0.08896	17.5	2.2737, -5	0.35674
12.6	1.1368, -3	0.05567	17.6	2.0938, -5	0.32093
12.7	1.0527, -3	0.02231	17.7	1.9279, -5	0.28508
12.8	9.7473, -4	0.98888	17.8	1.7750, -5	0.24920
12.9	9.0238, -4	0.95539	17.9	1.6341, -5	0.21328
13.0	8.3529, -4	0.92184	18.0	1.5042, -5	0.17732
13.1	7.7307, -4	0.88822	18.1	1.3846, -5	0.14132
13.2	7.1539, -4	0.85454	18.2	1.2744, -5	0.10529
13.3	6.6191, -4	0.82080	18.3	1.1728, -5	0.06923
13.4	6.1235, -4	0.78700	18.4	1.0793, -5	0.03313
13.5	5.6642, -4	0.75314	18.5	9.9310, -6	0.99699
13.6	5.2386, -4	0.71922	18.6	9.1374, -6	0.96082
13.7	4.8444, -4	0.68524	18.7	8.4065, -6	0.92462
13.8	4.4792, -4	0.65120	18.8	7.7335, -6	0.88838
13.9	4.1410, -4	0.61711	18.9	7.1139, -6	0.85211
14.0	3.8279, -4	0.58296	19.0	6.5434, -6	0.81580
14.1	3.5379, -4	0.54875	19.1	6.0181, -6	0.77946
14.2	3.2696, -4	0.51449	19.2	5.5347, -6	0.74309
14.3	3.0212, -4	0.48018	19.3	5.0896, -6	0.70669
14.4	2.7913, -4	0.44581	19.4	4.6801, -6	0.67025
14.5	2.5786, -4	0.41138	19.5	4.3031, -6	0.63378
14.6	2.3818, -4	0.37691	19.6	3.9563, -6	0.59729
14.7	2.1998, -4	0.34238	19.7	3.6371, -6	0.56076
14.8	2.0315, -4	0.30781	19.8	3.3434, -6	0.52419
14.9	1.8758, -4	0.27318	19.9	3.0733, -6	0.48760
15.0	1.7318, -4	0.23850	20.0	2.8247, -6	0.45098

x	$k_{4\frac{1}{2}}(x)$	log	x	$k_{4\frac{1}{2}}(x)$	log
0.1	9.9929, -1	0.99969	5.1	2.2146, -1	0.34529
0.2	9.9715, -1	0.99876	5.2	2.1042, -1	0.32309
0.3	9.9360, -1	0.99721	5.3	1.9982, -1	0.30065
0.4	9.8866, -1	0.99505	5.4	1.8966, -1	0.27797
0.5	9.8236, -1	0.99227	5.5	1.7992, -1	0.25507
0.6	9.7474, -1	0.98889	5.6	1.7059, -1	0.23195
0.7	9.6584, -1	0.98490	5.7	1.6166, -1	0.20860
0.8	9.5570, -1	0.98032	5.8	1.5312, -1	0.18504
0.9	9.4439, -1	0.97515	5.9	1.4497, -1	0.16127
1.0	9.3196, -1	0.96940	6.0	1.3718, -1	0.13729
1.1	9.1848, -1	0.96307	6.1	1.2975, -1	0.11311
1.2	9.0402, -1	0.95618	6.2	1.2267, -1	0.08873
1.3	8.8865, -1	0.94873	6.3	1.1592, -1	0.06416
1.4	8.7244, -1	0.94074	6.4	1.0949, -1	0.03939
1.5	8.5547, -1	0.93220	6.5	1.0338, -1	0.01444
1.6	8.3780, -1	0.92314	6.6	9.7566, -2	0.98930
1.7	8.1952, -1	0.91356	6.7	9.2040, -2	0.96398
1.8	8.0070, -1	0.90347	6.8	8.6792, -2	0.93848
1.9	7.8142, -1	0.89288	6.9	8.1811, -2	0.91281
2.0	7.6174, -1	0.88181	7.0	7.7084, -2	0.88697
2.1	7.4175, -1	0.87025	7.1	7.2603, -2	0.86096
2.2	7.2149, -1	0.85823	7.2	6.8356, -2	0.83478
2.3	7.0105, -1	0.84575	7.3	6.4334, -2	0.80844
2.4	6.8049, -1	0.83282	7.4	6.0526, -2	0.78194
2.5	6.5986, -1	0.81945	7.5	5.6923, -2	0.75529
2.6	6.3922, -1	0.80565	7.6	5.3516, -2	0.72848
2.7	6.1863, -1	0.79143	7.7	5.0295, -2	0.70152
2.8	5.9813, -1	0.77680	7.8	4.7252, -2	0.67442
2.9	5.7778, -1	0.76176	7.9	4.4377, -2	0.64716
3.0	5.5762, -1	0.74633	8.0	4.1664, -2	0.61977
3.1	5.3768, -1	0.73052	8.1	3.9105, -2	0.59223
3.2	5.1801, -1	0.71433	8.2	3.6690, -2	0.56455
3.3	4.9863, -1	0.69778	8.3	3.4414, -2	0.53674
3.4	4.7958, -1	0.68086	8.4	3.2269, -2	0.50879
3.5	4.6089, -1	0.66359	8.5	3.0249, -2	0.48071
3.6	4.4257, -1	0.64598	8.6	2.8347, -2	0.45250
3.7	4.2466, -1	0.62804	8.7	2.6556, -2	0.42417
3.8	4.0716, -1	0.60976	8.8	2.4872, -2	0.39570
3.9	3.9009, -1	0.59116	8.9	2.3287, -2	0.36712
4.0	3.7346, -1	0.57225	9.0	2.1798, -2	0.33841
4.1	3.5730, -1	0.55303	9.1	2.0398, -2	0.30958
4.2	3.4159, -1	0.53351	9.2	1.9083, -2	0.28064
4.3	3.2636, -1	0.51369	9.3	1.7847, -2	0.25158
4.4	3.1159, -1	0.49359	9.4	1.6688, -2	0.22240
4.5	2.9730, -1	0.47320	9.5	1.5600, -2	0.19311
4.6	2.8349, -1	0.45254	9.6	1.4578, -2	0.16371
4.7	2.7015, -1	0.43161	9.7	1.3621, -2	0.13420
4.8	2.5728, -1	0.41041	9.8	1.2723, -2	0.10459
4.9	2.4488, -1	0.38895	9.9	1.1881, -2	0.07486
5.0	2.3294, -1	0.36724	10.0	1.1093, -2	0.04504

x	$k_{4\frac{1}{2}}(x)$	log	x	$k_{4\frac{1}{2}}(x)$	log
10.1	1.0354, -2	0.01511	15.1	2.5931, -4	0.41382
10.2	9.6622, -3	0.98508	15.2	2.3995, -4	0.38011
10.3	9.0146, -3	0.95495	15.3	2.2200, -4	0.34635
10.4	8.4085, -3	0.92472	15.4	2.0537, -4	0.31253
10.5	7.8413, -3	0.89439	15.5	1.8996, -4	0.27866
10.6	7.3109, -3	0.86397	15.6	1.7569, -4	0.24475
10.7	6.8148, -3	0.83345	15.7	1.6247, -4	0.21077
10.8	6.3510, -3	0.80284	15.8	1.5023, -4	0.17675
10.9	5.9175, -3	0.77214	15.9	1.3889, -4	0.14268
11.0	5.5125, -3	0.74135	16.0	1.2840, -4	0.10856
11.1	5.1342, -3	0.71047	16.1	1.1868, -4	0.07439
11.2	4.7808, -3	0.67950	16.2	1.0969, -4	0.04017
11.3	4.4509, -3	0.64844	16.3	1.0137, -4	0.00590
11.4	4.1429, -3	0.61730	16.4	9.3668, -5	0.97159
11.5	3.8555, -3	0.58608	16.5	8.6542, -5	0.93723
11.6	3.5873, -3	0.55477	16.6	7.9950, -5	0.90282
11.7	3.3372, -3	0.52338	16.7	7.3853, -5	0.86837
11.8	3.1039, -3	0.49190	16.8	6.8213, -5	0.83387
11.9	2.8864, -3	0.46035	16.9	6.2997, -5	0.79932
12.0	2.6836, -3	0.42872	17.0	5.8174, -5	0.76473
12.1	2.4947, -3	0.39701	17.1	5.3715, -5	0.73010
12.2	2.3186, -3	0.36522	17.2	4.9593, -5	0.69542
12.3	2.1546, -3	0.33336	17.3	4.5782, -5	0.66070
12.4	2.0018, -3	0.30142	17.4	4.2261, -5	0.62594
12.5	1.8596, -3	0.26941	17.5	3.9006, -5	0.59113
12.6	1.7271, -3	0.23733	17.6	3.5998, -5	0.55628
12.7	1.6039, -3	0.20517	17.7	3.3219, -5	0.52139
12.8	1.4892, -3	0.17294	17.8	3.0652, -5	0.48646
12.9	1.3824, -3	0.14064	17.9	2.8280, -5	0.45148
13.0	1.2831, -3	0.10827	18.0	2.6090, -5	0.41647
13.1	1.1908, -3	0.07583	18.1	2.4067, -5	0.38142
13.2	1.1049, -3	0.04333	18.2	2.2199, -5	0.34632
13.3	1.0251, -3	0.01076	18.3	2.0473, -5	0.31119
13.4	9.5086, -4	0.97812	18.4	1.8881, -5	0.27602
13.5	8.8189, -4	0.94541	18.5	1.7410, -5	0.24081
13.6	8.1779, -4	0.91264	18.6	1.6053, -5	0.20556
13.7	7.5825, -4	0.87981	18.7	1.4800, -5	0.17027
13.8	7.0293, -4	0.84691	18.8	1.3644, -5	0.13495
13.9	6.5156, -4	0.81395	18.9	1.2577, -5	0.09959
14.0	6.0386, -4	0.78093	19.0	1.1593, -5	0.06419
14.1	5.5957, -4	0.74785	19.1	1.0684, -5	0.02875
14.2	5.1845, -4	0.71471	19.2	9.8465, -6	0.99328
14.3	4.8029, -4	0.68151	19.3	9.0734, -6	0.95777
14.4	4.4488, -4	0.64825	19.4	8.3604, -6	0.92223
14.5	4.1203, -4	0.61493	19.5	7.7028, -6	0.88665
14.6	3.8155, -4	0.58155	19.6	7.0964, -6	0.85104
14.7	3.5328, -4	0.54812	19.7	6.5371, -6	0.81539
14.8	3.2706, -4	0.51463	19.8	6.0215, -6	0.77970
14.9	3.0275, -4	0.48108	19.9	5.5461, -6	0.74399
15.0	2.8021, -4	0.44748	20.0	5.1078, -6	0.70824

x	$k_5(x)$	log	x	$k_5(x)$	log
0.1	9.9938, -1	0.99973	5.1	2.5396, -1	0.40476
0.2	9.9750, -1	0.99891	5.2	2.4218, -1	0.38413
0.3	9.9440, -1	0.99756	5.3	2.3081, -1	0.36326
0.4	9.9007, -1	0.99566	5.4	2.1986, -1	0.34216
0.5	9.8454, -1	0.99323	5.5	2.0932, -1	0.32082
0.6	9.7783, -1	0.99026	5.6	1.9918, -1	0.29925
0.7	9.6999, -1	0.98677	5.7	1.8944, -1	0.27746
0.8	9.6104, -1	0.98274	5.8	1.8008, -1	0.25546
0.9	9.5103, -1	0.97819	5.9	1.7109, -1	0.23323
1.0	9.4000, -1	0.97313	6.0	1.6248, -1	0.21080
1.1	9.2801, -1	0.96755	6.1	1.5423, -1	0.18816
1.2	9.1510, -1	0.96147	6.2	1.4632, -1	0.16532
1.3	9.0133, -1	0.95489	6.3	1.3876, -1	0.14227
1.4	8.8677, -1	0.94781	6.4	1.3153, -1	0.11903
1.5	8.7146, -1	0.94025	6.5	1.2462, -1	0.09560
1.6	8.5547, -1	0.93220	6.6	1.1803, -1	0.07198
1.7	8.3886, -1	0.92369	6.7	1.1173, -1	0.04817
1.8	8.2169, -1	0.91471	6.8	1.0572, -1	0.02417
1.9	8.0402, -1	0.90527	6.9	1.0000, -1	0.00000
2.0	7.8592, -1	0.89538	7.0	9.4548, -2	0.97565
2.1	7.6744, -1	0.88505	7.1	8.9357, -2	0.95113
2.2	7.4865, -1	0.87428	7.2	8.4418, -2	0.92644
2.3	7.2960, -1	0.86308	7.3	7.9721, -2	0.90157
2.4	7.1034, -1	0.85147	7.4	7.5257, -2	0.87655
2.5	6.9094, -1	0.83944	7.5	7.1016, -2	0.85136
2.6	6.7144, -1	0.82701	7.6	6.6990, -2	0.82601
2.7	6.5189, -1	0.81418	7.7	6.3168, -2	0.80050
2.8	6.3235, -1	0.80096	7.8	5.9544, -2	0.77484
2.9	6.1285, -1	0.78735	7.9	5.6108, -2	0.74902
3.0	5.9343, -1	0.77337	8.0	5.2852, -2	0.72306
3.1	5.7415, -1	0.75903	8.1	4.9768, -2	0.69695
3.2	5.5503, -1	0.74432	8.2	4.6848, -2	0.67069
3.3	5.3611, -1	0.72925	8.3	4.4085, -2	0.64429
3.4	5.1742, -1	0.71384	8.4	4.1472, -2	0.61775
3.5	4.9899, -1	0.69809	8.5	3.9001, -2	0.59108
3.6	4.8085, -1	0.68201	8.6	3.6666, -2	0.56426
3.7	4.6302, -1	0.66560	8.7	3.4460, -2	0.53731
3.8	4.4551, -1	0.64886	8.8	3.2377, -2	0.51023
3.9	4.2836, -1	0.63181	8.9	3.0410, -2	0.48302
4.0	4.1158, -1	0.61445	9.0	2.8555, -2	0.45568
4.1	3.9518, -1	0.59679	9.1	2.6805, -2	0.42822
4.2	3.7917, -1	0.57884	9.2	2.5155, -2	0.40063
4.3	3.6357, -1	0.56059	9.3	2.3600, -2	0.37292
4.4	3.4838, -1	0.54205	9.4	2.2135, -2	0.34509
4.5	3.3361, -1	0.52324	9.5	2.0756, -2	0.31713
4.6	3.1926, -1	0.50415	9.6	1.9457, -2	0.28907
4.7	3.0535, -1	0.48479	9.7	1.8234, -2	0.26088
4.8	2.9186, -1	0.46517	9.8	1.7084, -2	0.23258
4.9	2.7880, -1	0.44529	9.9	1.6002, -2	0.20417
5.0	2.6616, -1	0.42515	10.0	1.4985, -2	0.17565

x	$k_5(x)$	log	x	$k_5(x)$	log
10.1	1.4029, -2	0.14702	15.1	4.0134, -4	0.60351
10.2	1.3131, -2	0.11828	15.2	3.7225, -4	0.57083
10.3	1.2287, -2	0.08944	15.3	3.4522, -4	0.53809
10.4	1.1495, -2	0.06049	15.4	3.2011, -4	0.50529
10.5	1.0751, -2	0.03144	15.5	2.9678, -4	0.47244
10.6	1.0053, -2	0.00229	15.6	2.7512, -4	0.43953
10.7	9.3980, -3	0.97303	15.7	2.5501, -4	0.40656
10.8	8.7838, -3	0.94368	15.8	2.3634, -4	0.37354
10.9	8.2079, -3	0.91423	15.9	2.1901, -4	0.34047
11.0	7.6680, -3	0.88468	16.0	2.0293, -4	0.30734
11.1	7.1621, -3	0.85504	16.1	1.8800, -4	0.27416
11.2	6.6882, -3	0.82531	16.2	1.7415, -4	0.24092
11.3	6.2442, -3	0.79548	16.3	1.6130, -4	0.20764
11.4	5.8285, -3	0.76556	16.4	1.4938, -4	0.17430
11.5	5.4394, -3	0.73555	16.5	1.3833, -4	0.14091
11.6	5.0752, -3	0.70545	16.6	1.2808, -4	0.10747
11.7	4.7344, -3	0.67526	16.7	1.1857, -4	0.07398
11.8	4.4156, -3	0.64499	16.8	1.0976, -4	0.04044
11.9	4.1175, -3	0.61463	16.9	1.0159, -4	0.00685
12.0	3.8387, -3	0.58418	17.0	9.4019, -5	0.97321
12.1	3.5781, -3	0.55366	17.1	8.7002, -5	0.93953
12.2	3.3346, -3	0.52305	17.2	8.0500, -5	0.90580
12.3	3.1071, -3	0.49235	17.3	7.4476, -5	0.87202
12.4	2.8946, -3	0.46158	17.4	6.8895, -5	0.83819
12.5	2.6961, -3	0.43073	17.5	6.3726, -5	0.80432
12.6	2.5107, -3	0.39980	17.6	5.8938, -5	0.77040
12.7	2.3377, -3	0.36879	17.7	5.4504, -5	0.73643
12.8	2.1762, -3	0.33771	17.8	5.0399, -5	0.70242
12.9	2.0256, -3	0.30654	17.9	4.6598, -5	0.66837
13.0	1.8850, -3	0.27531	18.0	4.3079, -5	0.63427
13.1	1.7539, -3	0.24400	18.1	3.9822, -5	0.60013
13.2	1.6316, -3	0.21262	18.2	3.6808, -5	0.56594
13.3	1.5176, -3	0.18116	18.3	3.4018, -5	0.53171
13.4	1.4114, -3	0.14964	18.4	3.1437, -5	0.49744
13.5	1.3123, -3	0.11804	18.5	2.9049, -5	0.46313
13.6	1.2200, -3	0.08637	18.6	2.6839, -5	0.42877
13.7	1.1341, -3	0.05464	18.7	2.4796, -5	0.39437
13.8	1.0540, -3	0.02283	18.8	2.2905, -5	0.35994
13.9	9.7940, -4	0.99096	18.9	2.1157, -5	0.32546
14.0	9.0996, -4	0.95902	19.0	1.9541, -5	0.29094
14.1	8.4532, -4	0.92702	19.1	1.8046, -5	0.25638
14.2	7.8515, -4	0.89495	19.2	1.6664, -5	0.22178
14.3	7.2915, -4	0.86282	19.3	1.5387, -5	0.18714
14.4	6.7705, -4	0.83062	19.4	1.4206, -5	0.15247
14.5	6.2858, -4	0.79836	19.5	1.3114, -5	0.11775
14.6	5.8350, -4	0.76604	19.6	1.2106, -5	0.08300
14.7	5.4157, -4	0.73365	19.7	1.1174, -5	0.04820
14.8	5.0258, -4	0.70121	19.8	1.0313, -5	0.01337
14.9	4.6634, -4	0.66870	19.9	9.5172, -6	0.97851
15.0	4.3265, -4	0.63614	20.0	8.7822, -6	0.94360

x	$k_{5\frac{1}{2}}(x)$	log	x	$k_{5\frac{1}{2}}(x)$	log
0.1	9.9944, -1	0.99976	5.1	2.8526, -1	0.45524
0.2	9.9778, -1	0.99904	5.2	2.7290, -1	0.43601
0.3	9.9502, -1	0.99783	5.3	2.6094, -1	0.41654
0.4	9.9116, -1	0.99614	5.4	2.4937, -1	0.39684
0.5	9.8623, -1	0.99398	5.5	2.3818, -1	0.37691
0.6	9.8025, -1	0.99134	5.6	2.2738, -1	0.35675
0.7	9.7325, -1	0.98822	5.7	2.1695, -1	0.33636
0.8	9.6524, -1	0.98464	5.8	2.0690, -1	0.31576
0.9	9.5627, -1	0.98058	5.9	1.9721, -1	0.29494
1.0	9.4636, -1	0.97606	6.0	1.8789, -1	0.27390
1.1	9.3557, -1	0.97108	6.1	1.7892, -1	0.25266
1.2	9.2393, -1	0.96564	6.2	1.7030, -1	0.23121
1.3	9.1148, -1	0.95975	6.3	1.6202, -1	0.20956
1.4	8.9827, -1	0.95341	6.4	1.5407, -1	0.18771
1.5	8.8435, -1	0.94663	6.5	1.4644, -1	0.16566
1.6	8.6977, -1	0.93941	6.6	1.3913, -1	0.14343
1.7	8.5458, -1	0.93175	6.7	1.3213, -1	0.12100
1.8	8.3883, -1	0.92367	6.8	1.2542, -1	0.09838
1.9	8.2257, -1	0.91517	6.9	1.1901, -1	0.07559
2.0	8.0585, -1	0.90626	7.0	1.1288, -1	0.05261
2.1	7.8873, -1	0.89693	7.1	1.0702, -1	0.02945
2.2	7.7126, -1	0.88720	7.2	1.0142, -1	0.00612
2.3	7.5348, -1	0.87707	7.3	9.6077, -2	0.98262
2.4	7.3544, -1	0.86655	7.4	9.0980, -2	0.95895
2.5	7.1720, -1	0.85564	7.5	8.6121, -2	0.93511
2.6	6.9880, -1	0.84435	7.6	8.1490, -2	0.91110
2.7	6.8028, -1	0.83269	7.7	7.7080, -2	0.88694
2.8	6.6169, -1	0.82066	7.8	7.2881, -2	0.86262
2.9	6.4308, -1	0.80826	7.9	6.8887, -2	0.83814
3.0	6.2447, -1	0.79551	8.0	6.5088, -2	0.81350
3.1	6.0592, -1	0.78241	8.1	6.1477, -2	0.78871
3.2	5.8744, -1	0.76897	8.2	5.8047, -2	0.76378
3.3	5.6909, -1	0.75518	8.3	5.4789, -2	0.73869
3.4	5.5089, -1	0.74106	8.4	5.1697, -2	0.71346
3.5	5.3286, -1	0.72662	8.5	4.8763, -2	0.68809
3.6	5.1505, -1	0.71185	8.6	4.5981, -2	0.66258
3.7	4.9747, -1	0.69676	8.7	4.3343, -2	0.63692
3.8	4.8014, -1	0.68137	8.8	4.0844, -2	0.61113
3.9	4.6309, -1	0.66567	8.9	3.8477, -2	0.58521
4.0	4.4634, -1	0.64967	9.0	3.6237, -2	0.55915
4.1	4.2990, -1	0.63337	9.1	3.4116, -2	0.53296
4.2	4.1379, -1	0.61678	9.2	3.2110, -2	0.50664
4.3	3.9802, -1	0.59991	9.3	3.0213, -2	0.48019
4.4	3.8261, -1	0.58276	9.4	2.8420, -2	0.45362
4.5	3.6756, -1	0.56533	9.5	2.6725, -2	0.42692
4.6	3.5288, -1	0.54763	9.6	2.5125, -2	0.40010
4.7	3.3858, -1	0.52966	9.7	2.3614, -2	0.37316
4.8	3.2467, -1	0.51144	9.8	2.2187, -2	0.34611
4.9	3.1114, -1	0.49296	9.9	2.0842, -2	0.31893
5.0	2.9800, -1	0.47422	10.0	1.9572, -2	0.29164

x	$k_{5\frac{1}{2}}(x)$	log	x	$k_{5\frac{1}{2}}(x)$	log
10.1	1.8375, -2	0.26423	15.1	5.9674, -4	0.77579
10.2	1.7247, -2	0.23671	15.2	5.5474, -4	0.74409
10.3	1.6184, -2	0.20909	15.3	5.1563, -4	0.71234
10.4	1.5183, -2	0.18135	15.4	4.7920, -4	0.68052
10.5	1.4240, -2	0.15350	15.5	4.4529, -4	0.64864
10.6	1.3352, -2	0.12554	15.6	4.1372, -4	0.61670
10.7	1.2517, -2	0.09748	15.7	3.8433, -4	0.58471
10.8	1.1731, -2	0.06932	15.8	3.5698, -4	0.55265
10.9	1.0991, -2	0.04105	15.9	3.3154, -4	0.52054
11.0	1.0296, -2	0.01269	16.0	3.0787, -4	0.48836
11.1	9.6431, -3	0.98422	16.1	2.8585, -4	0.45614
11.2	9.0292, -3	0.95565	16.2	2.6537, -4	0.42385
11.3	8.4525, -3	0.92699	16.3	2.4633, -4	0.39151
11.4	7.9109, -3	0.89822	16.4	2.2862, -4	0.35911
11.5	7.4023, -3	0.86937	16.5	2.1216, -4	0.32666
11.6	6.9250, -3	0.84042	16.6	1.9686, -4	0.29416
11.7	6.4770, -3	0.81137	16.7	1.8264, -4	0.26160
11.8	6.0568, -3	0.78224	16.8	1.6943, -4	0.22899
11.9	5.6626, -3	0.75301	16.9	1.5715, -4	0.19632
12.0	5.2930, -3	0.72370	17.0	1.4575, -4	0.16361
12.1	4.9465, -3	0.69430	17.1	1.3516, -4	0.13084
12.2	4.6217, -3	0.66481	17.2	1.2532, -4	0.09802
12.3	4.3175, -3	0.63523	17.3	1.1618, -4	0.06515
12.4	4.0324, -3	0.60557	17.4	1.0770, -4	0.03223
12.5	3.7655, -3	0.57582	17.5	9.9828, -5	0.99925
12.6	3.5155, -3	0.54599	17.6	9.2520, -5	0.96623
12.7	3.2816, -3	0.51608	17.7	8.5736, -5	0.93317
12.8	3.0626, -3	0.48609	17.8	7.9442, -5	0.90005
12.9	2.8577, -3	0.45601	17.9	7.3601, -5	0.86688
13.0	2.6660, -3	0.42586	18.0	6.8182, -5	0.83367
13.1	2.4867, -3	0.39563	18.1	6.3155, -5	0.80041
13.2	2.3191, -3	0.36532	18.2	5.8493, -5	0.76710
13.3	2.1624, -3	0.33493	18.3	5.4169, -5	0.73375
13.4	2.0159, -3	0.30447	18.4	5.0159, -5	0.70035
13.5	1.8790, -3	0.27393	18.5	4.6442, -5	0.66691
13.6	1.7512, -3	0.24332	18.6	4.2995, -5	0.63342
13.7	1.6317, -3	0.21264	18.7	3.9800, -5	0.59988
13.8	1.5201, -3	0.18188	18.8	3.6839, -5	0.56631
13.9	1.4160, -3	0.15105	18.9	3.4094, -5	0.53268
14.0	1.3187, -3	0.12015	19.0	3.1551, -5	0.49902
14.1	1.2280, -3	0.08918	19.1	2.9195, -5	0.46531
14.2	1.1433, -3	0.05814	19.2	2.7012, -5	0.43156
14.3	1.0642, -3	0.02704	19.3	2.4990, -5	0.39776
14.4	9.9051, -4	0.99586	19.4	2.3117, -5	0.36393
14.5	9.2176, -4	0.96462	19.5	2.1382, -5	0.33005
14.6	8.5765, -4	0.93331	19.6	1.9776, -5	0.29613
14.7	7.9787, -4	0.90193	19.7	1.8288, -5	0.26217
14.8	7.4215, -4	0.87049	19.8	1.6911, -5	0.22817
14.9	6.9022, -4	0.83899	19.9	1.5636, -5	0.19413
15.0	6.4183, -4	0.80742	20.0	1.4456, -5	0.16005

x	$k_6(x)$	log	x	$k_6(x)$	log
0.1	9.9950, -1	0.99978	5.1	3.1512, -1	0.49848
0.2	9.9800, -1	0.99913	5.2	3.0235, -1	0.48051
0.3	9.9551, -1	0.99805	5.3	2.8994, -1	0.46230
0.4	9.9204, -1	0.99653	5.4	2.7788, -1	0.44386
0.5	9.8760, -1	0.99458	5.5	2.6619, -1	0.42519
0.6	9.8220, -1	0.99220	5.6	2.5486, -1	0.40630
0.7	9.7587, -1	0.98939	5.7	2.4388, -1	0.38718
0.8	9.6863, -1	0.98616	5.8	2.3326, -1	0.36784
0.9	9.6050, -1	0.98250	5.9	2.2299, -1	0.34829
1.0	9.5152, -1	0.97842	6.0	2.1307, -1	0.32853
1.1	9.4171, -1	0.97392	6.1	2.0349, -1	0.30855
1.2	9.3112, -1	0.96900	6.2	1.9425, -1	0.28837
1.3	9.1976, -1	0.96368	6.3	1.8535, -1	0.26799
1.4	9.0769, -1	0.95794	6.4	1.7677, -1	0.24740
1.5	8.9495, -1	0.95180	6.5	1.6851, -1	0.22662
1.6	8.8156, -1	0.94525	6.6	1.6056, -1	0.20565
1.7	8.6759, -1	0.93831	6.7	1.5293, -1	0.18449
1.8	8.5306, -1	0.93098	6.8	1.4559, -1	0.16313
1.9	8.3802, -1	0.92325	6.9	1.3855, -1	0.14160
2.0	8.2252, -1	0.91515	7.0	1.3179, -1	0.11988
2.1	8.0660, -1	0.90666	7.1	1.2531, -1	0.09798
2.2	7.9030, -1	0.89779	7.2	1.1910, -1	0.07590
2.3	7.7367, -1	0.88856	7.3	1.1315, -1	0.05365
2.4	7.5675, -1	0.87895	7.4	1.0745, -1	0.03122
2.5	7.3959, -1	0.86899	7.5	1.0201, -1	0.00863
2.6	7.2222, -1	0.85867	7.6	9.6800, -2	0.98587
2.7	7.0469, -1	0.84800	7.7	9.1823, -2	0.96295
2.8	6.8703, -1	0.83698	7.8	8.7069, -2	0.93986
2.9	6.6929, -1	0.82561	7.9	8.2531, -2	0.91662
3.0	6.5150, -1	0.81391	8.0	7.8201, -2	0.89322
3.1	6.3370, -1	0.80188	8.1	7.4072, -2	0.86966
3.2	6.1591, -1	0.78952	8.2	7.0137, -2	0.84595
3.3	5.9818, -1	0.77683	8.3	6.6387, -2	0.82208
3.4	5.8054, -1	0.76383	8.4	6.2816, -2	0.79807
3.5	5.6301, -1	0.75051	8.5	5.9417, -2	0.77391
3.6	5.4562, -1	0.73689	8.6	5.6184, -2	0.74961
3.7	5.2840, -1	0.72296	8.7	5.3109, -2	0.72517
3.8	5.1136, -1	0.70873	8.8	5.0186, -2	0.70058
3.9	4.9454, -1	0.69420	8.9	4.7408, -2	0.67585
4.0	4.7796, -1	0.67939	9.0	4.4770, -2	0.65099
4.1	4.6162, -1	0.66429	9.1	4.2266, -2	0.62599
4.2	4.4556, -1	0.64890	9.2	3.9890, -2	0.60086
4.3	4.2978, -1	0.63324	9.3	3.7636, -2	0.57560
4.4	4.1430, -1	0.61731	9.4	3.5499, -2	0.55021
4.5	3.9912, -1	0.60111	9.5	3.3473, -2	0.52469
4.6	3.8427, -1	0.58464	9.6	3.1553, -2	0.49905
4.7	3.6975, -1	0.56791	9.7	2.9736, -2	0.47328
4.8	3.5557, -1	0.55093	9.8	2.8014, -2	0.44738
4.9	3.4174, -1	0.53369	9.9	2.6386, -2	0.42137
5.0	3.2825, -1	0.51621	10.0	2.4845, -2	0.39523

x	$k_6(x)$	log	x	$k_6(x)$	log
10.1	2.3387, -2	0.36898	15.1	8.5700, -4	0.93298
10.2	2.2009, -2	0.34261	15.2	7.9843, -4	0.90223
10.3	2.0707, -2	0.31612	15.3	7.4375, -4	0.87143
10.4	1.9477, -2	0.28953	15.4	6.9271, -4	0.84055
10.5	1.8315, -2	0.26281	15.5	6.4508, -4	0.80961
10.6	1.7218, -2	0.23599	15.6	6.0064, -4	0.77861
10.7	1.6183, -2	0.20906	15.7	5.5917, -4	0.74755
10.8	1.5206, -2	0.18202	15.8	5.2050, -4	0.71642
10.9	1.4285, -2	0.15487	15.9	4.8443, -4	0.68523
11.0	1.3416, -2	0.12762	16.0	4.5080, -4	0.65398
11.1	1.2597, -2	0.10026	16.1	4.1944, -4	0.62267
11.2	1.1825, -2	0.07280	16.2	3.9021, -4	0.59130
11.3	1.1098, -2	0.04524	16.3	3.6297, -4	0.55987
11.4	1.0413, -2	0.01758	16.4	3.3759, -4	0.52839
11.5	9.7683, -3	0.98982	16.5	3.1394, -4	0.49684
11.6	9.1613, -3	0.96196	16.6	2.9190, -4	0.46524
11.7	8.5902, -3	0.93400	16.7	2.7138, -4	0.43358
11.8	8.0528, -3	0.90595	16.8	2.5227, -4	0.40186
11.9	7.5475, -3	0.87780	16.9	2.3447, -4	0.37009
12.0	7.0723, -3	0.84956	17.0	2.1790, -4	0.33826
12.1	6.6256, -3	0.82123	17.1	2.0248, -4	0.30638
12.2	6.2059, -3	0.79280	17.2	1.8812, -4	0.27444
12.3	5.8115, -3	0.76429	17.3	1.7476, -4	0.24245
12.4	5.4411, -3	0.73568	17.4	1.6233, -4	0.21040
12.5	5.0932, -3	0.70699	17.5	1.5077, -4	0.17831
12.6	4.7666, -3	0.67821	17.6	1.4001, -4	0.14615
12.7	4.4601, -3	0.64934	17.7	1.3000, -4	0.11395
12.8	4.1725, -3	0.62039	17.8	1.2070, -4	0.08170
12.9	3.9026, -3	0.59136	17.9	1.1205, -4	0.04939
13.0	3.6495, -3	0.56224	18.0	1.0400, -4	0.01704
13.1	3.4122, -3	0.53304	18.1	9.6523, -5	0.98463
13.2	3.1897, -3	0.50375	18.2	8.9573, -5	0.95218
13.3	2.9812, -3	0.47439	18.3	8.3114, -5	0.91967
13.4	2.7858, -3	0.44494	18.4	7.7111, -5	0.88712
13.5	2.6027, -3	0.41542	18.5	7.1535, -5	0.85452
13.6	2.4312, -3	0.38582	18.6	6.6354, -5	0.82187
13.7	2.2706, -3	0.35614	18.7	6.1542, -5	0.78917
13.8	2.1203, -3	0.32639	18.8	5.7072, -5	0.75642
13.9	1.9795, -3	0.29656	18.9	5.2922, -5	0.72363
14.0	1.8478, -3	0.26665	19.0	4.9068, -5	0.69079
14.1	1.7245, -3	0.23667	19.1	4.5489, -5	0.65791
14.2	1.6092, -3	0.20662	19.2	4.2168, -5	0.62498
14.3	1.5014, -3	0.17650	19.3	3.9085, -5	0.59201
14.4	1.4006, -3	0.14630	19.4	3.6223, -5	0.55899
14.5	1.3063, -3	0.11603	19.5	3.3568, -5	0.52592
14.6	1.2181, -3	0.08569	19.6	3.1104, -5	0.49281
14.7	1.1358, -3	0.05529	19.7	2.8818, -5	0.45966
14.8	1.0588, -3	0.02481	19.8	2.6697, -5	0.42647
14.9	9.8689, -4	0.99427	19.9	2.4730, -5	0.39323
15.0	9.1972, -4	0.96366	20.0	2.2906, -5	0.35995

x	$k_7(x)$	log	x	$k_7(x)$	log
0.1	9.9958, -1	0.99982	5.1	3.7017, -1	0.56840
0.2	9.9834, -1	0.99928	5.2	3.5692, -1	0.55257
0.3	9.9626, -1	0.99837	5.3	3.4397, -1	0.53652
0.4	9.9336, -1	0.99711	5.4	3.3131, -1	0.52024
0.5	9.8965, -1	0.99548	5.5	3.1896, -1	0.50373
0.6	9.8513, -1	0.99350	5.6	3.0691, -1	0.48701
0.7	9.7983, -1	0.99115	5.7	2.9517, -1	0.47008
0.8	9.7375, -1	0.98845	5.8	2.8374, -1	0.45293
0.9	9.6692, -1	0.98539	5.9	2.7262, -1	0.43556
1.0	9.5935, -1	0.98198	6.0	2.6182, -1	0.41800
1.1	9.5107, -1	0.97821	6.1	2.5132, -1	0.40022
1.2	9.4210, -1	0.97410	6.2	2.4113, -1	0.38224
1.3	9.3246, -1	0.96963	6.3	2.3124, -1	0.36407
1.4	9.2218, -1	0.96481	6.4	2.2166, -1	0.34570
1.5	9.1129, -1	0.95966	6.5	2.1239, -1	0.32713
1.6	8.9981, -1	0.95415	6.6	2.0341, -1	0.30837
1.7	8.8779, -1	0.94831	6.7	1.9472, -1	0.28942
1.8	8.7524, -1	0.94213	6.8	1.8633, -1	0.27028
1.9	8.6221, -1	0.93561	6.9	1.7822, -1	0.25096
2.0	8.4872, -1	0.92876	7.0	1.7039, -1	0.23146
2.1	8.3480, -1	0.92158	7.1	1.6284, -1	0.21177
2.2	8.2050, -1	0.91408	7.2	1.5557, -1	0.19191
2.3	8.0584, -1	0.90625	7.3	1.4855, -1	0.17188
2.4	7.9085, -1	0.89809	7.4	1.4180, -1	0.15167
2.5	7.7558, -1	0.88962	7.5	1.3530, -1	0.13129
2.6	7.6005, -1	0.88084	7.6	1.2904, -1	0.11074
2.7	7.4429, -1	0.87174	7.7	1.2303, -1	0.09002
2.8	7.2835, -1	0.86234	7.8	1.1726, -1	0.06914
2.9	7.1224, -1	0.85263	7.9	1.1171, -1	0.04810
3.0	6.9601, -1	0.84261	8.0	1.0639, -1	0.02690
3.1	6.7967, -1	0.83230	8.1	1.0128, -1	0.00554
3.2	6.6328, -1	0.82169	8.2	9.6387, -2	0.98402
3.3	6.4684, -1	0.81079	8.3	9.1696, -2	0.96235
3.4	6.3038, -1	0.79961	8.4	8.7202, -2	0.94052
3.5	6.1395, -1	0.78813	8.5	8.2899, -2	0.91855
3.6	5.9755, -1	0.77637	8.6	7.8782, -2	0.89643
3.7	5.8122, -1	0.76434	8.7	7.4844, -2	0.87416
3.8	5.6497, -1	0.75203	8.8	7.1079, -2	0.85174
3.9	5.4884, -1	0.73944	8.9	6.7482, -2	0.82919
4.0	5.3283, -1	0.72659	9.0	6.4045, -2	0.80649
4.1	5.1698, -1	0.71347	9.1	6.0764, -2	0.78365
4.2	5.0130, -1	0.70009	9.2	5.7633, -2	0.76067
4.3	4.8580, -1	0.68646	9.3	5.4646, -2	0.73756
4.4	4.7050, -1	0.67256	9.4	5.1798, -2	0.71431
4.5	4.5542, -1	0.65841	9.5	4.9083, -2	0.69093
4.6	4.4057, -1	0.64402	9.6	4.6496, -2	0.66742
4.7	4.2596, -1	0.62937	9.7	4.4032, -2	0.64377
4.8	4.1161, -1	0.61449	9.8	4.1687, -2	0.62000
4.9	3.9752, -1	0.59936	9.9	3.9455, -2	0.59610
5.0	3.8370, -1	0.58400	10.0	3.7332, -2	0.57208

x	$k_7(x)$	log	x	$k_7(x)$	log
10.1	3.5313, -2	0.54793	15.1	1.6196, -3	0.20940
10.2	3.3394, -2	0.52366	15.2	1.5151, -3	0.18045
10.3	3.1570, -2	0.49927	15.3	1.4172, -3	0.15142
10.4	2.9838, -2	0.47476	15.4	1.3253, -3	0.12233
10.5	2.8193, -2	0.45014	15.5	1.2393, -3	0.09316
10.6	2.6631, -2	0.42539	15.6	1.1586, -3	0.06393
10.7	2.5149, -2	0.40053	15.7	1.0830, -3	0.03463
10.8	2.3744, -2	0.37555	15.8	1.0122, -3	0.00525
10.9	2.2411, -2	0.35047	15.9	9.4583, -4	0.97581
11.0	2.1148, -2	0.32527	16.0	8.8371, -4	0.94631
11.1	1.9951, -2	0.29996	16.1	8.2554, -4	0.91674
11.2	1.8816, -2	0.27454	16.2	7.7108, -4	0.88710
11.3	1.7742, -2	0.24901	16.3	7.2011, -4	0.85740
11.4	1.6725, -2	0.22338	16.4	6.7240, -4	0.82763
11.5	1.5763, -2	0.19764	16.5	6.2777, -4	0.79780
11.6	1.4852, -2	0.17179	16.6	5.8601, -4	0.76790
11.7	1.3991, -2	0.14585	16.7	5.4695, -4	0.73795
11.8	1.3176, -2	0.11980	16.8	5.1042, -4	0.70793
11.9	1.2406, -2	0.09365	16.9	4.7626, -4	0.67785
12.0	1.1679, -2	0.06740	17.0	4.4433, -4	0.64771
12.1	1.0991, -2	0.04105	17.1	4.1448, -4	0.61750
12.2	1.0342, -2	0.01460	17.2	3.8658, -4	0.58724
12.3	9.7288, -3	0.98806	17.3	3.6051, -4	0.55692
12.4	9.1499, -3	0.96142	17.4	3.3615, -4	0.52654
12.5	8.6037, -3	0.93468	17.5	3.1340, -4	0.49610
12.6	8.0883, -3	0.90786	17.6	2.9215, -4	0.46560
12.7	7.6022, -3	0.88094	17.7	2.7230, -4	0.43505
12.8	7.1438, -3	0.85393	17.8	2.5377, -4	0.40444
12.9	6.7116, -3	0.82682	17.9	2.3647, -4	0.37377
13.0	6.3042, -3	0.79963	18.0	2.2032, -4	0.34304
13.1	5.9204, -3	0.77235	18.1	2.0524, -4	0.31226
13.2	5.5588, -3	0.74498	18.2	1.9117, -4	0.28143
13.3	5.2183, -3	0.71753	18.3	1.7805, -4	0.25054
13.4	4.8976, -3	0.68998	18.4	1.6581, -4	0.21960
13.5	4.5958, -3	0.66236	18.5	1.5438, -4	0.18860
13.6	4.3117, -3	0.63465	18.6	1.4373, -4	0.15755
13.7	4.0444, -3	0.60685	18.7	1.3380, -4	0.12645
13.8	3.7929, -3	0.57897	18.8	1.2454, -4	0.09529
13.9	3.5564, -3	0.55101	18.9	1.1590, -4	0.06409
14.0	3.3341, -3	0.52297	19.0	1.0785, -4	0.03283
14.1	3.1250, -3	0.49485	19.1	1.0035, -4	0.00152
14.2	2.9285, -3	0.46665	19.2	9.3360, -5	0.97016
14.3	2.7439, -3	0.43837	19.3	8.6846, -5	0.93875
14.4	2.5705, -3	0.41002	19.4	8.0777, -5	0.90729
14.5	2.4076, -3	0.38158	19.5	7.5124, -5	0.87578
14.6	2.2546, -3	0.35307	19.6	6.9859, -5	0.84422
14.7	2.1110, -3	0.32449	19.7	6.4955, -5	0.81261
14.8	1.9762, -3	0.29583	19.8	6.0389, -5	0.78096
14.9	1.8497, -3	0.26709	19.9	5.6138, -5	0.74925
15.0	1.7309, -3	0.23828	20.0	5.2180, -5	0.71750

x	$k_8(x)$	log	x	$k_8(x)$	log
0.1	9.9964, -1	0.99984	5.1	4.1896, -1	0.62217
0.2	9.9857, -1	0.99938	5.2	4.0559, -1	0.60808
0.3	9.9679, -1	0.99860	5.3	3.9245, -1	0.59378
0.4	9.9430, -1	0.99752	5.4	3.7954, -1	0.57926
0.5	9.9112, -1	0.99613	5.5	3.6689, -1	0.56453
0.6	9.8724, -1	0.99442	5.6	3.5449, -1	0.54960
0.7	9.8268, -1	0.99241	5.7	3.4234, -1	0.53445
0.8	9.7744, -1	0.99009	5.8	3.3045, -1	0.51911
0.9	9.7155, -1	0.98747	5.9	3.1883, -1	0.50356
1.0	9.6502, -1	0.98454	6.0	3.0747, -1	0.48781
1.1	9.5785, -1	0.98130	6.1	2.9639, -1	0.47186
1.2	9.5008, -1	0.97776	6.2	2.8557, -1	0.45572
1.3	9.4171, -1	0.97392	6.3	2.7503, -1	0.43938
1.4	9.3277, -1	0.96977	6.4	2.6476, -1	0.42286
1.5	9.2327, -1	0.96533	6.5	2.5476, -1	0.40614
1.6	9.1325, -1	0.96059	6.6	2.4504, -1	0.38924
1.7	9.0271, -1	0.95555	6.7	2.3559, -1	0.37215
1.8	8.9170, -1	0.95022	6.8	2.2640, -1	0.35488
1.9	8.8022, -1	0.94459	6.9	2.1748, -1	0.33743
2.0	8.6830, -1	0.93867	7.0	2.0883, -1	0.31980
2.1	8.5598, -1	0.93246	7.1	2.0044, -1	0.30199
2.2	8.4327, -1	0.92596	7.2	1.9231, -1	0.28401
2.3	8.3020, -1	0.91918	7.3	1.8444, -1	0.26586
2.4	8.1680, -1	0.91211	7.4	1.7682, -1	0.24754
2.5	8.0309, -1	0.90476	7.5	1.6945, -1	0.22904
2.6	7.8911, -1	0.89714	7.6	1.6232, -1	0.21038
2.7	7.7487, -1	0.88923	7.7	1.5544, -1	0.19156
2.8	7.6041, -1	0.88105	7.8	1.4879, -1	0.17257
2.9	7.4574, -1	0.87259	7.9	1.4237, -1	0.15342
3.0	7.3091, -1	0.86386	8.0	1.3618, -1	0.13411
3.1	7.1592, -1	0.85487	8.1	1.3021, -1	0.11465
3.2	7.0082, -1	0.84560	8.2	1.2446, -1	0.09503
3.3	6.8561, -1	0.83608	8.3	1.1892, -1	0.07525
3.4	6.7033, -1	0.82629	8.4	1.1358, -1	0.05532
3.5	6.5500, -1	0.81624	8.5	1.0845, -1	0.03524
3.6	6.3964, -1	0.80594	8.6	1.0352, -1	0.01501
3.7	6.2428, -1	0.79538	8.7	9.8772, -2	0.99463
3.8	6.0893, -1	0.78456	8.8	9.4213, -2	0.97411
3.9	5.9361, -1	0.77350	8.9	8.9834, -2	0.95344
4.0	5.7835, -1	0.76219	9.0	8.5631, -2	0.93263
4.1	5.6317, -1	0.75064	9.1	8.1598, -2	0.91168
4.2	5.4808, -1	0.73884	9.2	7.7730, -2	0.89059
4.3	5.3310, -1	0.72681	9.3	7.4022, -2	0.86936
4.4	5.1824, -1	0.71453	9.4	7.0468, -2	0.84799
4.5	5.0353, -1	0.70202	9.5	6.7064, -2	0.82649
4.6	4.8897, -1	0.68928	9.6	6.3805, -2	0.80486
4.7	4.7458, -1	0.67631	9.7	6.0686, -2	0.78309
4.8	4.6037, -1	0.66311	9.8	5.7702, -2	0.76119
4.9	4.4636, -1	0.64969	9.9	5.4848, -2	0.73916
5.0	4.3255, -1	0.63604	10.0	5.2120, -2	0.71701

x	$k_8(x)$	log	x	$k_8(x)$	log
10.1	4.9514, -2	0.69473	15.1	2.7827, -3	0.44447
10.2	4.7024, -2	0.67232	15.2	2.6132, -3	0.41716
10.3	4.4646, -2	0.64979	15.3	2.4535, -3	0.38979
10.4	4.2377, -2	0.62713	15.4	2.3032, -3	0.36234
10.5	4.0212, -2	0.60436	15.5	2.1618, -3	0.33481
10.6	3.8147, -2	0.58146	15.6	2.0287, -3	0.30721
10.7	3.6178, -2	0.55844	15.7	1.9034, -3	0.27953
10.8	3.4301, -2	0.53531	15.8	1.7856, -3	0.25179
10.9	3.2513, -2	0.51206	15.9	1.6748, -3	0.22397
11.0	3.0810, -2	0.48870	16.0	1.5706, -3	0.19608
11.1	2.9189, -2	0.46522	16.1	1.4727, -3	0.16812
11.2	2.7646, -2	0.44163	16.2	1.3807, -3	0.14008
11.3	2.6177, -2	0.41793	16.3	1.2941, -3	0.11198
11.4	2.4781, -2	0.39411	16.4	1.2129, -3	0.08381
11.5	2.3452, -2	0.37019	16.5	1.1365, -3	0.05557
11.6	2.2190, -2	0.34616	16.6	1.0648, -3	0.02727
11.7	2.0990, -2	0.32202	16.7	9.9746, -4	0.99889
11.8	1.9851, -2	0.29777	16.8	9.3423, -4	0.97045
11.9	1.8768, -2	0.27342	16.9	8.7488, -4	0.94195
12.0	1.7741, -2	0.24897	17.0	8.1917, -4	0.91338
12.1	1.6765, -2	0.22441	17.1	7.6690, -4	0.88474
12.2	1.5840, -2	0.19976	17.2	7.1786, -4	0.85604
12.3	1.4962, -2	0.17500	17.3	6.7185, -4	0.82727
12.4	1.4130, -2	0.15014	17.4	6.2870, -4	0.79844
12.5	1.3341, -2	0.12518	17.5	5.8824, -4	0.76955
12.6	1.2593, -2	0.10012	17.6	5.5030, -4	0.74060
12.7	1.1884, -2	0.07497	17.7	5.1473, -4	0.71158
12.8	1.1213, -2	0.04972	17.8	4.8140, -4	0.68250
12.9	1.0577, -2	0.02437	17.9	4.5016, -4	0.65337
13.0	9.9755, -3	0.99893	18.0	4.2089, -4	0.62417
13.1	9.4059, -3	0.97340	18.1	3.9347, -4	0.59491
13.2	8.8670, -3	0.94778	18.2	3.6778, -4	0.56559
13.3	8.3572, -3	0.92206	18.3	3.4373, -4	0.53621
13.4	7.8751, -3	0.89625	18.4	3.2120, -4	0.50678
13.5	7.4192, -3	0.87036	18.5	3.0011, -4	0.47729
13.6	6.9883, -3	0.84437	18.6	2.8037, -4	0.44774
13.7	6.5811, -3	0.81830	18.7	2.6190, -4	0.41813
13.8	6.1964, -3	0.79214	18.8	2.4460, -4	0.38846
13.9	5.8330, -3	0.76589	18.9	2.2843, -4	0.35874
14.0	5.4898, -3	0.73956	19.0	2.1329, -4	0.32897
14.1	5.1658, -3	0.71314	19.1	1.9913, -4	0.29914
14.2	4.8600, -3	0.68664	19.2	1.8589, -4	0.26925
14.3	4.5714, -3	0.66005	19.3	1.7350, -4	0.23931
14.4	4.2992, -3	0.63339	19.4	1.6193, -4	0.20932
14.5	4.0424, -3	0.60664	19.5	1.5110, -4	0.17927
14.6	3.8002, -3	0.57981	19.6	1.4098, -4	0.14917
14.7	3.5719, -3	0.55290	19.7	1.3153, -4	0.11901
14.8	3.3566, -3	0.52591	19.8	1.2269, -4	0.08881
14.9	3.1538, -3	0.49884	19.9	1.1443, -4	0.05855
15.0	2.9627, -3	0.47169	20.0	1.0672, -4	0.02824

x	$k_9(x)$	log	x	$k_9(x)$	log
0.1	9.9969, -1	0.99986	5.1	4.6194, -1	0.66458
0.2	9.9875, -1	0.99946	5.2	4.4867, -1	0.65193
0.3	9.9719, -1	0.99878	5.3	4.3558, -1	0.63907
0.4	9.9501, -1	0.99783	5.4	4.2267, -1	0.62601
0.5	9.9222, -1	0.99661	5.5	4.0996, -1	0.61274
0.6	9.8882, -1	0.99512	5.6	3.9745, -1	0.59929
0.7	9.8482, -1	0.99336	5.7	3.8515, -1	0.58563
0.8	9.8023, -1	0.99133	5.8	3.7306, -1	0.57178
0.9	9.7505, -1	0.98903	5.9	3.6119, -1	0.55774
1.0	9.6930, -1	0.98646	6.0	3.4955, -1	0.54351
1.1	9.6299, -1	0.98362	6.1	3.3814, -1	0.52909
1.2	9.5613, -1	0.98052	6.2	3.2695, -1	0.51448
1.3	9.4874, -1	0.97715	6.3	3.1600, -1	0.49969
1.4	9.4084, -1	0.97351	6.4	3.0529, -1	0.48472
1.5	9.3243, -1	0.96961	6.5	2.9482, -1	0.46956
1.6	9.2353, -1	0.96545	6.6	2.8460, -1	0.45423
1.7	9.1417, -1	0.96103	6.7	2.7461, -1	0.43871
1.8	9.0435, -1	0.95634	6.8	2.6487, -1	0.42302
1.9	8.9411, -1	0.95139	6.9	2.5536, -1	0.40716
2.0	8.8346, -1	0.94619	7.0	2.4611, -1	0.39112
2.1	8.7241, -1	0.94072	7.1	2.3709, -1	0.37492
2.2	8.6099, -1	0.93500	7.2	2.2832, -1	0.35854
2.3	8.4923, -1	0.92902	7.3	2.1978, -1	0.34199
2.4	8.3713, -1	0.92279	7.4	2.1149, -1	0.32528
2.5	8.2473, -1	0.91631	7.5	2.0343, -1	0.30841
2.6	8.1204, -1	0.90958	7.6	1.9560, -1	0.29137
2.7	7.9909, -1	0.90260	7.7	1.8800, -1	0.27417
2.8	7.8590, -1	0.89537	7.8	1.8064, -1	0.25681
2.9	7.7249, -1	0.88789	7.9	1.7350, -1	0.23929
3.0	7.5887, -1	0.88017	8.0	1.6658, -1	0.22162
3.1	7.4508, -1	0.87220	8.1	1.5988, -1	0.20379
3.2	7.3114, -1	0.86400	8.2	1.5339, -1	0.18580
3.3	7.1706, -1	0.85555	8.3	1.4712, -1	0.16767
3.4	7.0286, -1	0.84687	8.4	1.4105, -1	0.14938
3.5	6.8858, -1	0.83795	8.5	1.3519, -1	0.13095
3.6	6.7421, -1	0.82880	8.6	1.2953, -1	0.11237
3.7	6.5980, -1	0.81941	8.7	1.2406, -1	0.09364
3.8	6.4535, -1	0.80979	8.8	1.1879, -1	0.07476
3.9	6.3088, -1	0.79995	8.9	1.1370, -1	0.05575
4.0	6.1641, -1	0.78987	9.0	1.0879, -1	0.03659
4.1	6.0197, -1	0.77957	9.1	1.0406, -1	0.01729
4.2	5.8756, -1	0.76905	9.2	9.9507, -2	0.99785
4.3	5.7320, -1	0.75831	9.3	9.5121, -2	0.97828
4.4	5.5891, -1	0.74734	9.4	9.0900, -2	0.95857
4.5	5.4470, -1	0.73616	9.5	8.6840, -2	0.93872
4.6	5.3059, -1	0.72476	9.6	8.2935, -2	0.91874
4.7	5.1659, -1	0.71315	9.7	7.9182, -2	0.89862
4.8	5.0271, -1	0.70132	9.8	7.5575, -2	0.87838
4.9	4.8897, -1	0.68928	9.9	7.2112, -2	0.85801
5.0	4.7538, -1	0.67704	10.0	6.8787, -2	0.83750

x	$k_9(x)$	log	x	$k_9(x)$	log
10.1	6.5595, -2	0.81687	15.1	4.4313, -3	0.64653
10.2	6.2534, -2	0.79612	15.2	4.1759, -3	0.62075
10.3	5.9598, -2	0.77523	15.3	3.9345, -3	0.59489
10.4	5.6784, -2	0.75423	15.4	3.7064, -3	0.56896
10.5	5.4088, -2	0.73310	15.5	3.4909, -3	0.54294
10.6	5.1505, -2	0.71185	15.6	3.2874, -3	0.51685
10.7	4.9032, -2	0.69048	15.7	3.0951, -3	0.49068
10.8	4.6665, -2	0.66899	15.8	2.9136, -3	0.46444
10.9	4.4400, -2	0.64739	15.9	2.7423, -3	0.43811
11.0	4.2234, -2	0.62566	16.0	2.5806, -3	0.41172
11.1	4.0163, -2	0.60382	16.1	2.4280, -3	0.38525
11.2	3.8183, -2	0.58187	16.2	2.2841, -3	0.35871
11.3	3.6291, -2	0.55980	16.3	2.1483, -3	0.33209
11.4	3.4484, -2	0.53762	16.4	2.0202, -3	0.30540
11.5	3.2759, -2	0.51533	16.5	1.8995, -3	0.27864
11.6	3.1112, -2	0.49293	16.6	1.7857, -3	0.25181
11.7	2.9540, -2	0.47042	16.7	1.6784, -3	0.22490
11.8	2.8041, -2	0.44780	16.8	1.5774, -3	0.19793
11.9	2.6611, -2	0.42507	16.9	1.4821, -3	0.17089
12.0	2.5248, -2	0.40223	17.0	1.3924, -3	0.14378
12.1	2.3949, -2	0.37930	17.1	1.3080, -3	0.11660
12.2	2.2712, -2	0.35625	17.2	1.2284, -3	0.08935
12.3	2.1533, -2	0.33311	17.3	1.1535, -3	0.06203
12.4	2.0411, -2	0.30986	17.4	1.0830, -3	0.03465
12.5	1.9342, -2	0.28650	17.5	1.0167, -3	0.00720
12.6	1.8325, -2	0.26305	17.6	9.5429, -4	0.97968
12.7	1.7358, -2	0.23950	17.7	8.9557, -4	0.95210
12.8	1.6438, -2	0.21585	17.8	8.4034, -4	0.92446
12.9	1.5563, -2	0.19210	17.9	7.8840, -4	0.89675
13.0	1.4732, -2	0.16826	18.0	7.3956, -4	0.86897
13.1	1.3942, -2	0.14431	18.1	6.9364, -4	0.84114
13.2	1.3191, -2	0.12028	18.2	6.5048, -4	0.81324
13.3	1.2478, -2	0.09615	18.3	6.0992, -4	0.78527
13.4	1.1801, -2	0.07192	18.4	5.7181, -4	0.75725
13.5	1.1158, -2	0.04760	18.5	5.3600, -4	0.72916
13.6	1.0549, -2	0.02319	18.6	5.0236, -4	0.70102
13.7	9.9699, -3	0.99869	18.7	4.7077, -4	0.67281
13.8	9.4210, -3	0.97410	18.8	4.4110, -4	0.64454
13.9	8.9006, -3	0.94942	18.9	4.1325, -4	0.61621
14.0	8.4071, -3	0.92465	19.0	3.8710, -4	0.58783
14.1	7.9394, -3	0.89979	19.1	3.6256, -4	0.55938
14.2	7.4962, -3	0.87484	19.2	3.3953, -4	0.53088
14.3	7.0764, -3	0.84981	19.3	3.1792, -4	0.50232
14.4	6.6787, -3	0.82469	19.4	2.9765, -4	0.47370
14.5	6.3022, -3	0.79949	19.5	2.7863, -4	0.44502
14.6	5.9457, -3	0.77420	19.6	2.6079, -4	0.41629
14.7	5.6083, -3	0.74883	19.7	2.4406, -4	0.38750
14.8	5.2891, -3	0.72338	19.8	2.2838, -4	0.35866
14.9	4.9870, -3	0.69784	19.9	2.1368, -4	0.32976
15.0	4.7014, -3	0.67223	20.0	1.9990, -4	0.30081

x	$k_{10}(x)$	log	x	$k_{10}(x)$	log
0.1	9.9972, -1	0.99988	5.1	4.9978, -1	0.69878
0.2	9.9889, -1	0.99952	5.2	4.8675, -1	0.68731
0.3	9.9750, -1	0.99891	5.3	4.7386, -1	0.67565
0.4	9.9557, -1	0.99807	5.4	4.6110, -1	0.66380
0.5	9.9308, -1	0.99699	5.5	4.4850, -1	0.65176
0.6	9.9006, -1	0.99566	5.6	4.3605, -1	0.63954
0.7	9.8649, -1	0.99409	5.7	4.2377, -1	0.62713
0.8	9.8240, -1	0.99229	5.8	4.1166, -1	0.61454
0.9	9.7778, -1	0.99024	5.9	3.9973, -1	0.60177
1.0	9.7265, -1	0.98796	6.0	3.8799, -1	0.58882
1.1	9.6702, -1	0.98543	6.1	3.7643, -1	0.57568
1.2	9.6088, -1	0.98267	6.2	3.6507, -1	0.56237
1.3	9.5427, -1	0.97967	6.3	3.5391, -1	0.54889
1.4	9.4718, -1	0.97643	6.4	3.4295, -1	0.53523
1.5	9.3964, -1	0.97296	6.5	3.3220, -1	0.52140
1.6	9.3165, -1	0.96925	6.6	3.2166, -1	0.50739
1.7	9.2323, -1	0.96531	6.7	3.1133, -1	0.49322
1.8	9.1439, -1	0.96113	6.8	3.0122, -1	0.47888
1.9	9.0514, -1	0.95672	6.9	2.9132, -1	0.46437
2.0	8.9552, -1	0.95207	7.0	2.8164, -1	0.44969
2.1	8.8552, -1	0.94720	7.1	2.7218, -1	0.43485
2.2	8.7517, -1	0.94209	7.2	2.6293, -1	0.41985
2.3	8.6448, -1	0.93675	7.3	2.5391, -1	0.40468
2.4	8.5347, -1	0.93119	7.4	2.4511, -1	0.38936
2.5	8.4216, -1	0.92539	7.5	2.3652, -1	0.37387
2.6	8.3057, -1	0.91937	7.6	2.2815, -1	0.35823
2.7	8.1871, -1	0.91313	7.7	2.2000, -1	0.34243
2.8	8.0660, -1	0.90666	7.8	2.1207, -1	0.32648
2.9	7.9426, -1	0.89996	7.9	2.0435, -1	0.31037
3.0	7.8171, -1	0.89305	8.0	1.9684, -1	0.29411
3.1	7.6897, -1	0.88591	8.1	1.8954, -1	0.27770
3.2	7.5606, -1	0.87855	8.2	1.8245, -1	0.26114
3.3	7.4298, -1	0.87098	8.3	1.7556, -1	0.24444
3.4	7.2977, -1	0.86319	8.4	1.6888, -1	0.22758
3.5	7.1644, -1	0.85518	8.5	1.6240, -1	0.21058
3.6	7.0300, -1	0.84695	8.6	1.5611, -1	0.19344
3.7	6.8947, -1	0.83852	8.7	1.5002, -1	0.17615
3.8	6.7588, -1	0.82987	8.8	1.4412, -1	0.15872
3.9	6.6223, -1	0.82101	8.9	1.3840, -1	0.14115
4.0	6.4855, -1	0.81194	9.0	1.3287, -1	0.12344
4.1	6.3484, -1	0.80266	9.1	1.2752, -1	0.10559
4.2	6.2113, -1	0.79318	9.2	1.2235, -1	0.08761
4.3	6.0742, -1	0.78349	9.3	1.1735, -1	0.06949
4.4	5.9375, -1	0.77360	9.4	1.1252, -1	0.05123
4.5	5.8010, -1	0.76351	9.5	1.0786, -1	0.03284
4.6	5.6652, -1	0.75321	9.6	1.0335, -1	0.01432
4.7	5.5299, -1	0.74272	9.7	9.9008, -2	0.99567
4.8	5.3954, -1	0.73203	9.8	9.4817, -2	0.97689
4.9	5.2618, -1	0.72114	9.9	9.0777, -2	0.95798
5.0	5.1292, -1	0.71005	10.0	8.6884, -2	0.93894

x	$k_{10}(x)$	log	x	$k_{10}(x)$	log
10.1	8.3133, -2	0.91977	15.1	6.6343, -3	0.82180
10.2	7.9521, -2	0.90048	15.2	6.2722, -3	0.79742
10.3	7.6045, -2	0.88107	15.3	5.9288, -3	0.77296
10.4	7.2699, -2	0.86153	15.4	5.6031, -3	0.74843
10.5	6.9482, -2	0.84187	15.5	5.2943, -3	0.72381
10.6	6.6388, -2	0.82209	15.6	5.0016, -3	0.69911
10.7	6.3414, -2	0.80219	15.7	4.7242, -3	0.67433
10.8	6.0557, -2	0.78217	15.8	4.4614, -3	0.64947
10.9	5.7813, -2	0.76203	15.9	4.2125, -3	0.62454
11.0	5.5179, -2	0.74177	16.0	3.9767, -3	0.59952
11.1	5.2650, -2	0.72140	16.1	3.7535, -3	0.57444
11.2	5.0224, -2	0.70091	16.2	3.5422, -3	0.54927
11.3	4.7897, -2	0.68031	16.3	3.3422, -3	0.52403
11.4	4.5667, -2	0.65960	16.4	3.1529, -3	0.49871
11.5	4.3528, -2	0.63877	16.5	2.9739, -3	0.47332
11.6	4.1480, -2	0.61784	16.6	2.8045, -3	0.44786
11.7	3.9517, -2	0.59679	16.7	2.6443, -3	0.42232
11.8	3.7638, -2	0.57563	16.8	2.4929, -3	0.39671
11.9	3.5840, -2	0.55437	16.9	2.3498, -3	0.37102
12.0	3.4119, -2	0.53299	17.0	2.2145, -3	0.34527
12.1	3.2472, -2	0.51152	17.1	2.0866, -3	0.31944
12.2	3.0898, -2	0.48993	17.2	1.9658, -3	0.29354
12.3	2.9393, -2	0.46824	17.3	1.8517, -3	0.26758
12.4	2.7954, -2	0.44645	17.4	1.7440, -3	0.24154
12.5	2.6580, -2	0.42455	17.5	1.6422, -3	0.21543
12.6	2.5267, -2	0.40256	17.6	1.5462, -3	0.18926
12.7	2.4014, -2	0.38046	17.7	1.4555, -3	0.16301
12.8	2.2817, -2	0.35826	17.8	1.3699, -3	0.13670
12.9	2.1675, -2	0.33596	17.9	1.2892, -3	0.11033
13.0	2.0585, -2	0.31356	18.0	1.2131, -3	0.08388
13.1	1.9546, -2	0.29107	18.1	1.1412, -3	0.05737
13.2	1.8556, -2	0.26847	18.2	1.0735, -3	0.03080
13.3	1.7611, -2	0.24578	18.3	1.0096, -3	0.00415
13.4	1.6711, -2	0.22300	18.4	9.4940, -4	0.97745
13.5	1.5853, -2	0.20012	18.5	8.9264, -4	0.95068
13.6	1.5037, -2	0.17715	18.6	8.3916, -4	0.92384
13.7	1.4259, -2	0.15408	18.7	7.8876, -4	0.89695
13.8	1.3518, -2	0.13093	18.8	7.4129, -4	0.86999
13.9	1.2814, -2	0.10768	18.9	6.9657, -4	0.84296
14.0	1.2143, -2	0.08433	19.0	6.5446, -4	0.81588
14.1	1.1505, -2	0.06090	19.1	6.1480, -4	0.78873
14.2	1.0899, -2	0.03738	19.2	5.7747, -4	0.76153
14.3	1.0322, -2	0.01378	19.3	5.4233, -4	0.73426
14.4	9.7741, -3	0.99008	19.4	5.0925, -4	0.70693
14.5	9.2532, -3	0.96629	19.5	4.7813, -4	0.67954
14.6	8.7584, -3	0.94242	19.6	4.4885, -4	0.65210
14.7	8.2883, -3	0.91847	19.7	4.2130, -4	0.62459
14.8	7.8420, -3	0.89443	19.8	3.9539, -4	0.59703
14.9	7.4182, -3	0.87030	19.9	3.7103, -4	0.56940
15.0	7.0160, -3	0.84609	20.0	3.4812, -4	0.54172

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518.2

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The function and its logarithm are tabulated for the values:-

$x = 0.1(0.1)20$

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