

EXPONENTIAL AND HYPERBOLIC FUNCTIONS AND THEIR COMMON LOGARITHMS

x	e^x		e^{-x}	$\sinh x$		$\cosh x$		$\tanh x$
	Value	\log_{10}		Value	\log_{10}	Value	\log_{10}	
0.00	1.0000	0.00000	1.00000	0.0000	$-\infty$	1.0000	0.00000	0.00000
0.01	1.0101	.00434	0.99005	.0100	-2.00001	1.0001	.00002	.01000
0.02	1.0202	.00869	.98020	.0200	-2.30106	1.0002	.00009	.02000
0.03	1.0305	.01303	.97045	.0300	-2.47719	1.0005	.00020	.02999
0.04	1.0408	.01737	.96079	.0400	-2.60218	1.0008	.00035	.03998
0.05	1.0513	.02171	.95123	.0500	-2.69915	1.0013	.00054	.04996
0.06	1.0618	.02606	.94176	.0600	-2.77841	1.0018	.00078	.05993
0.07	1.0725	.03040	.93239	.0701	-2.84545	1.0025	.00106	.06989
0.08	1.0833	.03474	.92312	.0801	-2.90355	1.0032	.00139	.07983
0.09	1.0942	.03909	.91393	.0901	-2.95483	1.0041	.00176	.08976
0.10	1.1052	.04343	.90484	.1002	-1.00072	1.0050	.00217	.09967
0.11	1.1163	.04777	.89583	.1102	-1.04227	1.0061	.00262	.10956
0.12	1.1275	.05212	.88692	.1203	-1.08022	1.0072	.00312	.11943
0.13	1.1388	.05646	.87809	.1304	-1.11517	1.0085	.00366	.12927
0.14	1.1503	.06080	.86936	.1405	-1.14755	1.0098	.00424	.13909
0.15	1.1618	.06514	.86071	.1506	-1.17772	1.0113	.00487	.14889
0.16	1.1735	.06949	.85214	.1607	-1.20597	1.0128	.00554	.15865
0.17	1.1853	.07383	.84366	.1708	-1.23254	1.0145	.00625	.16838
0.18	1.1972	.07817	.83527	.1810	-1.25762	1.0162	.00700	.17808
0.19	1.2092	.08252	.82696	.1911	-1.28136	1.0181	.00779	.18775
0.20	1.2214	.08686	.81873	.2013	-1.30392	1.0201	.00863	.19738
0.21	1.2337	.09120	.81058	.2115	-1.32541	1.0221	.00951	.20697
0.22	1.2461	.09554	.80252	.2218	-1.34592	1.0243	.01043	.21652
0.23	1.2586	.09989	.79453	.2320	-1.36555	1.0266	.01139	.22603
0.24	1.2712	.10423	.78663	.2423	-1.38437	1.0289	.01239	.23550
0.25	1.2840	.10857	.77880	.2526	-1.40245	1.0314	.01343	.24492
0.26	1.2969	.11292	.77105	.2629	-1.41986	1.0340	.01452	.25430
0.27	1.3100	.11726	.76338	.2733	-1.43663	1.0367	.01564	.26362
0.28	1.3231	.12160	.75578	.2837	-1.45282	1.0395	.01681	.27291
0.29	1.3364	.12595	.74826	.2941	-1.46847	1.0423	.01801	.28213
0.30	1.3499	.13029	.74082	.3045	-1.48362	1.0453	.01926	.29131
0.31	1.3634	.13463	.73345	.3150	-1.49830	1.0484	.02054	.30044
0.32	1.3771	.13897	.72615	.3255	-1.51254	1.0516	.02187	.30951
0.33	1.3910	.14332	.71892	.3360	-1.52637	1.0549	.02323	.31852
0.34	1.4049	.14766	.71177	.3466	-1.53981	1.0584	.02463	.32748
0.35	1.4191	.15200	.70469	.3572	-1.55290	1.0619	.02607	.33638
0.36	1.4333	.15635	.69768	.3678	-1.56564	1.0655	.02755	.34521
0.37	1.4477	.16069	.69073	.3785	-1.57807	1.0692	.02907	.35399
0.38	1.4623	.16503	.68386	.3892	-1.59019	1.0731	.03063	.36271
0.39	1.4770	.16937	.67706	.4000	-1.60202	1.0770	.03222	.37136
0.40	1.4918	.17372	.67032	.4108	-1.61358	1.0811	.03385	.37995
0.41	1.5063	.17806	.66365	.4216	-1.62488	1.0852	.03552	.38847
0.42	1.5220	.18240	.65705	.4325	-1.63594	1.0895	.03723	.39693
0.43	1.5373	.18675	.65051	.4434	-1.64677	1.0939	.03897	.40532
0.44	1.5527	.19109	.64404	.4543	-1.65738	1.0984	.04075	.41364
0.45	1.5683	.19543	.63763	.4653	-1.66777	1.1030	.04256	.42190
0.46	1.5841	.19978	.63128	.4764	-1.67797	1.1077	.04441	.43008
0.47	1.6000	.20412	.62500	.4875	-1.68797	1.1125	.04630	.43820
0.48	1.6161	.20846	.61878	.4986	-1.69779	1.1174	.04822	.44624
0.49	1.6323	.21280	.61263	.5098	-1.70744	1.1225	.05018	.45422
0.50	1.6487	.21715	.60653	.5211	-1.71692	1.1276	.05217	.46212
0.51	1.6653	.22149	.60050	.5324	-1.72624	1.1329	.05419	.46995
0.52	1.6820	.22583	.59452	.5438	-1.73540	1.1383	.05625	.47770
0.53	1.6989	.23018	.58860	.5552	-1.74442	1.1438	.05834	.48538

x	e^x		e^{-x}		$\sinh x$		$\cosh x$		$\tanh x$
	Value	\log_{10}	Value	Value	\log_{10}	Value	\log_{10}	Value	
0.54	1.7160	.23452	.58275	.5666	-1.75330	1.1494	.06046	.49299	
0.55	1.7333	.23886	.57695	.5782	-1.76204	1.1551	.06262	.50052	
0.56	1.7507	.24320	.57121	.5897	-1.77065	1.1609	.06481	.50798	
0.57	1.7683	.24755	.56553	.6014	-1.77914	1.1669	.06703	.51536	
0.58	1.7860	.25189	.55990	.6131	-1.78751	1.1730	.06929	.52267	
0.59	1.8040	.25623	.55433	.6248	-1.79576	1.1792	.07157	.52990	
0.60	1.8221	.26058	.54881	.6367	-1.80390	1.1855	.07389	.53705	
0.61	1.8404	.26492	.54335	.6485	-1.81194	1.1919	.07624	.54413	
0.62	1.8589	.26926	.53794	.6605	-1.81987	1.1984	.07861	.55113	
0.63	1.8776	.27361	.53259	.6725	-1.82770	1.2051	.08102	.55805	
0.64	1.8965	.27795	.52729	.6846	-1.83543	1.2119	.08346	.56490	
0.65	1.9155	.28229	.52205	.6967	-1.84308	1.2188	.08593	.57167	
0.66	1.9348	.28664	.51685	.7090	-1.85063	1.2258	.08843	.57836	
0.67	1.9542	.29098	.51171	.7213	-1.85809	1.2330	.09095	.58498	
0.68	1.9739	.29532	.50662	.7336	-1.86548	1.2402	.09351	.59152	
0.69	1.9937	.29966	.50158	.7461	-1.87278	1.2476	.09609	.59798	
0.70	2.0138	.30401	.49659	.7586	-1.88000	1.2552	.09870	.60437	
0.71	2.0340	.30835	.49164	.7712	-1.88715	1.2628	.10134	.61068	
0.72	2.0544	.31269	.48675	.7838	-1.89423	1.2706	.10401	.61691	
0.73	2.0751	.31703	.48191	.7966	-1.90123	1.2785	.10670	.62307	
0.74	2.0959	.32138	.47711	.8094	-1.90817	1.2865	.10942	.62915	
0.75	2.1170	.32572	.47237	.8223	-1.91504	1.2947	.11216	.63515	
0.76	2.1383	.33006	.46767	.8353	-1.92185	1.3030	.11493	.64108	
0.77	2.1598	.33441	.46301	.8484	-1.92859	1.3114	.11773	.64693	
0.78	2.1815	.33875	.45841	.8615	-1.93527	1.3199	.12055	.65271	
0.79	2.2034	.34309	.45384	.8748	-1.94190	1.3286	.12340	.65841	
0.80	2.2255	.34744	.44933	.8881	-1.94846	1.3374	.12627	.66404	
0.81	2.2479	.35178	.44486	.9015	-1.95498	1.3464	.12917	.66959	
0.82	2.2705	.35612	.44043	.9150	-1.96144	1.3555	.13209	.67507	
0.83	2.2933	.36046	.43605	.9286	-1.96784	1.3647	.13503	.68048	
0.84	2.3164	.36481	.43171	.9423	-1.97420	1.3740	.13800	.68581	
0.85	2.3396	.36915	.42741	.9561	-1.98051	1.3835	.14099	.69107	
0.86	2.3632	.37349	.42316	.9700	-1.98677	1.3932	.14400	.69626	
0.87	2.3869	.37784	.41895	.9840	-1.99299	1.4029	.14704	.70137	
0.88	2.4100	.38218	.41478	.9981	-1.99916	1.4128	.15009	.70642	
0.89	2.4351	.38652	.41066	1.0122	0.00528	1.4229	.15317	.71139	
0.90	2.4596	.39087	.40657	1.0265	.01137	1.4331	.15627	.71630	
0.91	2.4843	.39521	.40242	1.0409	.01741	1.4434	.15939	.72113	
0.92	2.5093	.39955	.39852	1.0554	.02341	1.4539	.16254	.72590	
0.93	2.5345	.40389	.39455	1.0700	.02937	1.4645	.16570	.73059	
0.94	2.5600	.40824	.39063	1.0847	.03530	1.4753	.16888	.73522	
0.95	2.5857	.41258	.38674	1.0995	.04119	1.4862	.17208	.73978	
0.96	2.6117	.41692	.38289	1.1144	.04704	1.4973	.17531	.74428	
0.97	2.6379	.42127	.37908	1.1294	.05286	1.5085	.17855	.74870	
0.98	2.6645	.42561	.37531	1.1446	.05864	1.5199	.18181	.75307	
0.99	2.6912	.42995	.37158	1.1598	.06439	1.5314	.18509	.75736	
1.00	2.7183	.43429	.36788	1.1752	.07011	1.5431	.18839	.76159	
1.10	3.0042	.47772	.33287	1.3356	.12569	1.6685	.22233	.80050	
1.20	3.3201	.52115	.30119	1.5095	.17882	1.8107	.25784	.83365	
1.30	3.6693	.56458	.27253	1.6984	.23004	1.9709	.29467	.86172	
1.40	4.0552	.60801	.24660	1.9043	.27974	2.1509	.33262	.88535	
1.50	4.4817	.65144	.22313	2.1293	.32823	2.3524	.37151	.90515	
1.60	4.9530	.69487	.20190	2.3756	.37577	2.5775	.41119	.92167	
1.70	5.4739	.73830	.18268	2.6456	.42253	2.8283	.45153	.93541	
1.80	6.0496	.78173	.16530	2.9422	.46867	3.1075	.49241	.94681	
1.90	6.6859	.82516	.14957	3.2682	.51430	3.4177	.53374	.95624	
2.00	7.3891	.86859	.13534	3.6269	.55953	3.7622	.57544	.96403	

x	e^x		e^{-x}	$\sinh x$		$\cosh x$		$\tanh x$
	Value	\log_{10}		Value	\log_{10}	Value	\log_{10}	
2.10	8.1662	.91202	.12246	4.0219	.60443	4.1443	.61745	.97045
2.20	9.0250	.95545	.11080	4.4571	.64905	4.5679	.65972	.97574
2.30	9.9742	.99888	.10026	4.9370	.69346	5.0372	.70219	.98010
2.40	11.023	1.04231	.09072	5.4662	.73769	5.5569	.74484	.98367
2.50	12.182	1.08574	.08208	6.0502	.78177	6.1323	.78762	.98661
2.60	13.464	1.12917	.07427	6.6947	.82573	6.7690	.83052	.98903
2.70	14.880	1.17260	.06721	7.4063	.86960	7.4735	.87352	.99101
2.80	16.445	1.21602	.06081	8.1919	.91339	8.2527	.91660	.99263
2.90	18.174	1.25945	.05502	9.0596	.95711	9.1146	.95974	.99396
3.00	20.086	1.30288	.04979	10.018	1.00078	10.068	1.00293	0.99505
3.50	33.115	1.52003	.03020	16.543	1.21860	16.573	1.21940	0.99818
4.00	54.598	1.73718	.01832	27.290	1.43600	27.308	1.43629	0.99933
4.50	90.017	1.95433	.01111	45.003	1.65324	45.014	1.65335	0.99975
5.00	148.41	2.17147	.00674	74.203	1.87042	74.210	1.87046	0.99991
5.50	244.69	2.38862	.00409	122.34	2.08758	122.35	2.08760	0.99997
6.00	403.43	2.60577	.00248	201.71	2.30473	201.72	2.30474	0.99999
6.50	665.14	2.82291	.00150	332.57	2.52188	332.57	2.52189	1.00000
7.00	1096.6	3.04006	.00091	548.32	2.73904	548.32	2.73903	1.00000
7.50	1808.0	3.25721	.00055	904.02	2.95618	904.02	2.95618	1.00000
8.00	2981.0	3.47436	.00034	1490.5	3.17333	1490.5	3.17333	1.00000
8.50	4914.8	3.69150	.00020	2457.4	3.39047	2457.4	3.39047	1.00000
9.00	8103.1	3.90865	.00012	4051.5	3.60762	4051.5	3.60762	1.00000
9.50	13360.	4.12580	.00007	6679.9	3.82477	6679.9	3.82477	1.00000
10.00	22026.	4.34294	.00005	11013.	4.04191	11013.	4.04191	1.00000