Tukey's HSD Distribution

HSD Statistics for the Given Two-Tailed Probabilities (p) and Degrees of Freedom (df)

	df _{EFFECT} = 1					
df _{ERROR}	p = .05	p = .01				
2	4.303	9.925				
3	3.182	5.841				
4	2.776	4.604				
5	2.571	4.032				
6	2.447	3.707				
7	2.365	3.499				
8	2.306	3.355				
9	2.262	3.250				
10	2.228	3.169				
11	2.201	3.106				
12	2.179	3.055				
13	2.160	3.012				
14	2.145	2.977				
15	2.131	2.947				
16	2.120	2.921				
17	2.110	2.898				
18	2.101	2.878				
19	2.093	2.861 2.845				
20	2.086					
21	2.080	2.831				
22	2.074	2.819 2.807 2.797 2.787 2.779				
23	2.069					
24	2.064					
25	2.060					
26	2.056					
27	2.052	2.771				
28	2.048	2.763				
29	2.045	2.756				
30	2.042	2.750				
35	2.030	2.724				
40	2.021	2.704				
45	2.014	2.690				
50	2.009	2.678				
55	2.004	2.668				
60	2.000	2.660				
70	1.994	2.648				
80	1.990	2.639				
90	1.987	2.632				
100	1.984	2.626				
120	1.980	2.617				
240	1.970	2.596				
∞	1.960	2.576				

	df _{EFFECT} = 2						
df _{ERROR}	p = .05	p = .01					
2	5.891	13.449					
3	4.179	7.508					
4	3.564	5.742					
5	3.254	4.933					
6	3.068	4.476					
7	2.945	4.186					
8	2.857	3.985					
9	2.792	3.838					
10	2.741	3.727					
11	2.701	3.639					
12	2.668	3.568					
13	2.640	3.510					
14	2.640	3.461					
15	2.517	3.420					
16		3.420					
	2.580						
17	2.565	3.353					
18 19	2.552	3.326					
	2.540	3.302 3.280 3.261					
20	2.530						
21	2.521						
22	2.512	3.244					
23	2.504	3.228					
24	2.497	3.214					
25	2.491	3.201					
26	2.485	3.189					
27	2.479	3.178					
28	2.474	3.168					
29	2.470	3.159					
30	2.465	3.150					
35	2.447	3.114					
40	2.434	3.088					
45	2.424	3.068					
50	2.415	3.052					
55	2.409	3.039					
60	2.403	3.028					
70	2.395	3.011					
80	2.388	2.999					
90	2.383	2.989					
100	2.379	2.981					
120	2.373	2.970					
240	2.358	2.941					
∞	2.344	2.914					

df _{EFFECT} = 3											
df_{ERROR}	p = .05	p = .01									
2	6.928	15.764									
3	4.826	8.605									
4	4.071	6.486									
5	3.690	5.518									
6	3.462	4.973									
7	3.310	4.626									
8	3.202	4.387									
9	3.122	4.212									
10	3.059	4.079									
11	3.010	3.974									
12	2.969	3.890									
13	2.935	3.821									
14	2.907	3.763									
15	2.882	3.714									
16	2.861	3.671									
17	2.843	3.634									
18	2.826	3.602									
19	2.812	3.574									
20	2.799	3.548									
21	2.787	3.526									
22	2.777	3.505									
23	2.767	3.487									
24	2.759	3.470									
25	2.751	3.454									
26	2.743	3.440									
27	2.737	3.427									
28	2.730	3.415									
29	2.725	3.404									
30	2.719	3.394									
35	2.697	3.351									
40	2.680	3.320									
45	2.668	3.296									
50	2.658	3.277									
55	2.649	3.262									
60	2.643	3.249									
70	2.632	3.229									
80	2.624	3.214									
90	2.618	3.203									
100	2.613	3.193									
120	2.605	3.180									
240	2.587	3.146									
∞	2.569	3.113									
		-									

	$df_{EFFECT} = 4$					
df _{ERROR}	p = .05	p = .01				
2	7.694	17.478				
3	5.304	9.422				
4	4.446	7.042				
5	4.012	5.955				
6	3.751	5.343				
7	3.578	4.953				
8	3.455	4.684				
9	3.363	4.488				
10	3.291	4.339				
11	3.234	4.222				
12	3.187	4.127				
13	3.149	4.049				
14	3.116	3.984				
15	3.088	3.929				
16	3.064	3.881				
17	3.042	3.840				
18	3.024	3.803				
19	3.007	3.771				
20	2.992	3.743 3.717 3.694 3.674				
21	2.979					
22	2.967					
23	2.956					
24	2.946	3.655				
25	2.937	3.637				
26	2.928	3.621				
27	2.921	3.607				
28	2.913	3.593				
29	2.907	3.581				
30	2.901	3.569				
35	2.875	3.522				
40	2.856	3.487				
45	2.841	3.460				
50	2.830	3.438				
55	2.820	3.421				
60	2.812	3.407				
70	2.800	3.384				
80	2.791	3.368				
90	2.784	3.355				
100	2.778	3.345				
120	2.770	3.329				
240	2.749	3.292				
∞	2.728	3.255				

HSD Statistics for $df_{EFFECT} = 1$ and the Given Two-Tailed Probabilities (p) and df_{ERROR}

							Two-	Tailed p	Values						
df _{ERROR}	.90	.80	.70	.60	.50	.40	.30	.20	.10	.05	.04	.03	.02	.01	.001
2	.142	.289	.445	.617	.816	1.06	1.386	1.886	2.920	4.303	4.849	5.643	6.965	9.925	31.599
3	.137	.277	.424	.584	.765	.978	1.250	1.638	2.353	3.182	3.482	3.896	4.541	5.841	12.924
4	.134	.271	.414	.569	.741	.941	1.190	1.533	2.132	2.776	2.999	3.298	3.747	4.604	8.610
5	.132	.267	.408	.559	.727	.920	1.156	1.476	2.015	2.571	2.757	3.003	3.365	4.032	6.869
6	.131	.265	.404	.553	.718	.906	1.134	1.440	1.943	2.447	2.612	2.829	3.143	3.707	5.959
7	.130	.263	.402	.549	.711	.896	1.119	1.415	1.895	2.365	2.517	2.715	2.998	3.499	5.408
8	.130	.262	.399	.546	.706	.889	1.108	1.397	1.860	2.306	2.449	2.634	2.896	3.355	5.041
9	.129	.261	.398	.543	.703	.883	1.100	1.383	1.833	2.262	2.398	2.574	2.821	3.250	4.781
10	.129	.260	.397	.542	.700	.879	1.093	1.372	1.812	2.228	2.359	2.527	2.764	3.169	4.587
11	.129	.260	.396	.540	.697	.876	1.088	1.363	1.796	2.201	2.328	2.491	2.718	3.106	4.437
12	.128	.259	.395	.539	.695	.873	1.083	1.356	1.782	2.179	2.303	2.461	2.681	3.055	4.318
13	.128	.259	.394	.538	.694	.870	1.079	1.350	1.771	2.160	2.282	2.436	2.650	3.012	4.221
14	.128	.258	.393	.537	.692	.868	1.076	1.345	1.761	2.145	2.264	2.415	2.624	2.977	4.140
15	.128	.258	.393	.536	.691	.866	1.074	1.341	1.753	2.131	2.249	2.397	2.602	2.947	4.073
16	.128	.258	.392	.535	.690	.865	1.071	1.337	1.746	2.120	2.235	2.382	2.583	2.921	4.015
17	.128	.257	.392	.534	.689	.863	1.069	1.333	1.740	2.110	2.224	2.368	2.567	2.898	3.965
18	.127	.257	.392	.534	.688	.862	1.067	1.330	1.734	2.101	2.214	2.356	2.552	2.878	3.922
19	.127	.257	.391	.533	.688	.861	1.066	1.328	1.729	2.093	2.205	2.346	2.539	2.861	3.883
20	.127	.257	.391	.533	.687	.860	1.064	1.325	1.725	2.086	2.197	2.336	2.528	2.845	3.850
21	.127	.257	.391	.532	.686	.859	1.063	1.323	1.721	2.080	2.189	2.328	2.518	2.831	3.819
22	.127	.256	.390	.532	.686	.858	1.061	1.321	1.717	2.074	2.183	2.320	2.508	2.819	3.792
23	.127	.256	.390	.532	.685	.858	1.060	1.319	1.714	2.069	2.177	2.313	2.500	2.807	3.768
24	.127	.256	.390	.531	.685	.857	1.059	1.318	1.711	2.064	2.172	2.307	2.492	2.797	3.745
25	.127	.256	.390	.531	.684	.856	1.058	1.316	1.708	2.060	2.167	2.301	2.485	2.787	3.725
26	.127	.256	.390	.531	.684	.856	1.058	1.315	1.706	2.056	2.162	2.296	2.479	2.779	3.707
27	.127	.256	.389	.531	.684	.855	1.057	1.314	1.703	2.052	2.158	2.291	2.473	2.771	3.690
28	.127	.256	.389	.530	.683	.855	1.056	1.313	1.701	2.048	2.154	2.286	2.467	2.763	3.674
29	.127	.256	.389	.530	.683	.854	1.055	1.311	1.699	2.045	2.150	2.282	2.462	2.756	3.659
30	.127	.256	.389	.530	.683	.854	1.055	1.310	1.697	2.042	2.147	2.278	2.457	2.750	3.646
35	.127	.255	.388	.529	.682	.852	1.052	1.306	1.690	2.030	2.133	2.262	2.438	2.724	3.591
40	.126	.255	.388	.529	.681	.851	1.050	1.303	1.684	2.021	2.123	2.250	2.423	2.704	3.551
45	.126	.255	.388	.528	.680	.850	1.049	1.301	1.679	2.014	2.115	2.241	2.412	2.690	3.520
50	.126	.255	.388	.528	.679	.849	1.047	1.299	1.676	2.009	2.109	2.234	2.403	2.678	3.496
55	.126	.255	.387	.527	.679	.848	1.046	1.297	1.673	2.004	2.104	2.228	2.396	2.668	3.476
60	.126	.254	.387	.527	.679	.848	1.045	1.296	1.671	2.000	2.099	2.223	2.390	2.660	3.460
70	.126	.254	.387	.527	.678	.847	1.044	1.294	1.667	1.994	2.093	2.215	2.381	2.648	3.435
80	.126	.254	.387	.526	.678	.846	1.043	1.292	1.664	1.990	2.088	2.209	2.374	2.639	3.416
90	.126	.254	.387	.526	.677	.846	1.042	1.291	1.662	1.987	2.084	2.205	2.368	2.632	3.402
100	.126	.254	.386	.526	.677	.845	1.042	1.290	1.660	1.984	2.081	2.201	2.364	2.626	3.390
120	.126	.254	.386	.526	.677	.845	1.041	1.289	1.658	1.980	2.076	2.196	2.358	2.617	3.373
240	.126	.254	.386	.525	.676	.843	1.039	1.285	1.651	1.970	2.065	2.183	2.342	2.596	3.332
∞	.126	.253	.385	.524	.674	.842	1.036	1.282	1.645	1.960	2.054	2.170	2.326	2.576	3.291

HSD Statistics for $df_{EFFECT} = 2$ and the Given Two-Tailed Probabilities (p) and df_{ERROR}

	Two-Tailed p Values														
df _{ERROR}	.90	.80	.70	.60	.50	.40	.30	.20	.10	.05	.04	.03	.02	.01	.001
2	.449	.674	.883	1.10	1.35	1.65	2.063	2.701	4.054	5.891	6.621	7.685	9.461	13.45	42.765
3	.445	.661	.855	1.05	1.27	1.52	1.835	2.295	3.159	4.179	4.550	5.066	5.873	7.508	16.487
4	.443	.655	.842	1.03	1.23	1.45	1.735	2.124	2.811	3.564	3.826	4.180	4.715	5.742	10.595
5	.442	.651	.835	1.02	1.21	1.42	1.679	2.030	2.628	3.254	3.465	3.746	4.162	4.933	8.253
6	.441	.649	.830	1.01	1.19	1.40	1.643	1.972	2.516	3.068	3.251	3.492	3.842	4.476	7.042
7	.441	.647	.826	1.00	1.18	1.38	1.618	1.931	2.440	2.945	3.110	3.325	3.634	4.186	6.315
8	.440	.646	.823	.995	1.17	1.37	1.600	1.902	2.386	2.857	3.010	3.207	3.489	3.985	5.833
9	.440	.644	.821	.992	1.17	1.36	1.586	1.879	2.345	2.792	2.935	3.120	3.382	3.838	5.493
10	.440	.644	.820	.989	1.16	1.35	1.575	1.861	2.312	2.741	2.877	3.053	3.300	3.727	5.240
11	.439	.643	.818	.986	1.16	1.35	1.566	1.847	2.287	2.701	2.832	2.999	3.235	3.639	5.045
12	.439	.642	.817	.984	1.16	1.34	1.559	1.835	2.266	2.668	2.794	2.956	3.182	3.568	4.891
13	.439	.642	.816	.983	1.15	1.34	1.553	1.826	2.248	2.640	2.763	2.920	3.139	3.510	4.766
14	.439	.642	.815	.981	1.15	1.33	1.547	1.817	2.233	2.617	2.737	2.890	3.102	3.461	4.662
15	.439	.641	.815	.980	1.15	1.33	1.543	1.810	2.220	2.597	2.715	2.864	3.071	3.420	4.575
16	.439	.641	.814	.979	1.15	1.33	1.539	1.804	2.209	2.580	2.695	2.841	3.044	3.384	4.501
17	.439	.641	.813	.978	1.15	1.33	1.535	1.798	2.199	2.565	2.679	2.822	3.021	3.353	4.437
18	.439	.640	.813	.977	1.14	1.33	1.532	1.793	2.191	2.552	2.664	2.805	3.000	3.326	4.381
19	.438	.640	.813	.977	1.14	1.32	1.529	1.789	2.183	2.540	2.651	2.790	2.982	3.302	4.332
20	.438	.640	.812	.976	1.14	1.32	1.527	1.785	2.176	2.530	2.639	2.776	2.966	3.280	4.289
21	.438	.640	.812	.975	1.14	1.32	1.525	1.782	2.170	2.521	2.628	2.764	2.951	3.261	4.250
22	.438	.640	.811	.975	1.14	1.32	1.523	1.778	2.164	2.512	2.619	2.753	2.938	3.244	4.215
23	.438	.640	.811	.974	1.14	1.32	1.521	1.775	2.159	2.504	2.610	2.743	2.926	3.228	4.184
24	.438	.639	.811	.974	1.14	1.32	1.519	1.773	2.155	2.497	2.602	2.734	2.915	3.214	4.156
25	.438	.639	.811	.973	1.14	1.32	1.518	1.770	2.150	2.491	2.595	2.726	2.905	3.201	4.130
26	.438	.639	.810	.973	1.14	1.31	1.516	1.768	2.146	2.485	2.588	2.718	2.896	3.189	4.106
27	.438	.639	.810	.973	1.14	1.31	1.515	1.766	2.143	2.479	2.582	2.711	2.888	3.178	4.084
28	.438	.639	.810	.972	1.14	1.31	1.514	1.764	2.140	2.474	2.576	2.704	2.880	3.168	4.065
29	.438	.639	.810	.972	1.14	1.31	1.512	1.762	2.136	2.470	2.571	2.698	2.873	3.159	4.046
30	.438	.639	.810	.972	1.14	1.31	1.511	1.761	2.134	2.465	2.566	2.693	2.866	3.150	4.029
35	.438	.639	.809	.971	1.13	1.31	1.507	1.754	2.122	2.447	2.546	2.670	2.838	3.114	3.959
40	.438	.638	.808	.970	1.13	1.31	1.504	1.749	2.113	2.434	2.531	2.653	2.818	3.088	3.909
45	.438	.638	.808	.969	1.13	1.30	1.501	1.745	2.106	2.424	2.519	2.639	2.802	3.068	3.870
50	.438	.638	.808	.968	1.13	1.30	1.499	1.742	2.100	2.415	2.510	2.629	2.790	3.052	3.839
55	.438	.638	.808	.968	1.13	1.30	1.498	1.739	2.096	2.409	2.503	2.620	2.780	3.039	3.814
60	.438	.638	.807	.968	1.13	1.30	1.496	1.737	2.092	2.403	2.497	2.613	2.772	3.028	3.794
70	.438	.637	.807	.967	1.13	1.30	1.494	1.734	2.086	2.395	2.487	2.602	2.759	3.011	3.762
80	.438	.637	.807	.967	1.13	1.30	1.492	1.731	2.082	2.388	2.480	2.594	2.749	2.999	3.738
90	.437	.637	.806	.966	1.13	1.30	1.491	1.729	2.079	2.383	2.474	2.588	2.741	2.989	3.720
100	.437	.637	.806	.966	1.13	1.30	1.490	1.728	2.076	2.379	2.470	2.583	2.735	2.981	3.706
120	.437	.637	.806	.966	1.13	1.30	1.489	1.725	2.072	2.373	2.463	2.575	2.726	2.970	3.684
240	.437	.637	.805	.965	1.12	1.29	1.485	1.719	2.062	2.358	2.447	2.556	2.704	2.941	3.632
∞	.437	.636	.805	.964	1.12	1.29	1.481	1.714	2.052	2.344	2.430	2.538	2.682	2.914	3.581

HSD Statistics for $df_{EFFECT} = 3$ and the Given Two-Tailed Probabilities (p) and df_{ERROR}

	Two-Tailed p Values														
df _{ERROR}	.90	.80	.70	.60	.50	.40	.30	.20	.10	.05	.04	.03	.02	.01	.001
2	.672	.926	1.16	1.40	1.68	2.02	2.490	3.223	4.789	6.928	7.780	9.023	11.10	15.76	50.056
3	.676	.918	1.13	1.34	1.58	1.85	2.201	2.710	3.676	4.826	5.246	5.830	6.746	8.605	18.839
4	.679	.914	1.12	1.32	1.53	1.77	2.073	2.494	3.243	4.071	4.360	4.752	5.345	6.486	11.906
5	.681	.913	1.11	1.30	1.50	1.73	2.001	2.375	3.015	3.690	3.919	4.224	4.676	5.518	9.166
6	.683	.912	1.10	1.29	1.48	1.70	1.955	2.300	2.874	3.462	3.657	3.914	4.290	4.973	7.753
7	.684	.911	1.10	1.28	1.47	1.68	1.924	2.248	2.780	3.310	3.484	3.711	4.039	4.626	6.907
8	.685	.911	1.10	1.28	1.46	1.66	1.900	2.210	2.711	3.202	3.361	3.568	3.864	4.387	6.348
9	.686	.911	1.10	1.27	1.45	1.65	1.882	2.182	2.660	3.122	3.270	3.462	3.735	4.212	5.953
10	.686	.910	1.10	1.27	1.45	1.64	1.868	2.159	2.619	3.059	3.200	3.380	3.636	4.079	5.661
11	.687	.910	1.09	1.27	1.44	1.63	1.856	2.141	2.587	3.010	3.143	3.315	3.558	3.974	5.436
12	.687	.910	1.09	1.27	1.44	1.63	1.847	2.125	2.560	2.969	3.098	3.263	3.494	3.890	5.258
13	.688	.910	1.09	1.26	1.44	1.62	1.839	2.113	2.538	2.935	3.060	3.219	3.442	3.821	5.113
14	.688	.910	1.09	1.26	1.43	1.62	1.832	2.102	2.519	2.907	3.028	3.182	3.398	3.763	4.993
15	.688	.910	1.09	1.26	1.43	1.62	1.826	2.093	2.503	2.882	3.000	3.151	3.360	3.714	4.893
16	.688	.910	1.09	1.26	1.43	1.61	1.821	2.085	2.489	2.861	2.977	3.124	3.328	3.671	4.808
17	.689	.910	1.09	1.26	1.43	1.61	1.816	2.078	2.477	2.843	2.956	3.100	3.299	3.634	4.734
18	.689	.910	1.09	1.26	1.43	1.61	1.812	2.071	2.466	2.826	2.938	3.079	3.275	3.602	4.670
19	.689	.910	1.09	1.26	1.42	1.60	1.809	2.066	2.456	2.812	2.922	3.061	3.253	3.574	4.613
20	.689	.910	1.09	1.26	1.42	1.60	1.805	2.061	2.448	2.799	2.907	3.044	3.233	3.548	4.564
21	.689	.910	1.09	1.26	1.42	1.60	1.803	2.056	2.440	2.787	2.894	3.029	3.216	3.526	4.519
22	.689	.909	1.09	1.25	1.42	1.60	1.800	2.052	2.433	2.777	2.882	3.016	3.200	3.505	4.479
23	.690	.909	1.09	1.25	1.42	1.60	1.797	2.048	2.426	2.767	2.872	3.004	3.185	3.487	4.444
24	.690	.909	1.09	1.25	1.42	1.60	1.795	2.045	2.421	2.759	2.862	2.993	3.172	3.470	4.411
25	.690	.909	1.09	1.25	1.42	1.59	1.793	2.042	2.415	2.751	2.853	2.983	3.160	3.454	4.381
26	.690	.909	1.09	1.25	1.42	1.59	1.791	2.039	2.410	2.743	2.845	2.973	3.149	3.440	4.354
27	.690	.909	1.09	1.25	1.42	1.59	1.790	2.036	2.406	2.737	2.838	2.965	3.139	3.427	4.330
28	.690	.909	1.09	1.25	1.42	1.59	1.788	2.034	2.402	2.730	2.831	2.957	3.130	3.415	4.307
29	.690	.909	1.09	1.25	1.42	1.59	1.787	2.031	2.398	2.725	2.824	2.949	3.121	3.404	4.286
30	.690	.909	1.09	1.25	1.42	1.59	1.785	2.029	2.394	2.719	2.818	2.943	3.113	3.394	4.266
35	.691	.909	1.09	1.25	1.41	1.59	1.780	2.020	2.379	2.697	2.793	2.915	3.080	3.351	4.186
40	.691	.909	1.09	1.25	1.41	1.58	1.775	2.014	2.368	2.680	2.775	2.894	3.056	3.320	4.128
45	.691	.909	1.09	1.25	1.41	1.58	1.772	2.009	2.359	2.668	2.761	2.878	3.037	3.296	4.084
50	.691	.909	1.09	1.25	1.41	1.58	1.769	2.005	2.352	2.658	2.750	2.865	3.022	3.277	4.049
55	.691	.909	1.09	1.25	1.41	1.58	1.767	2.001	2.347	2.649	2.741	2.855	3.010	3.262	4.020
60	.691	.909	1.08	1.25	1.41	1.58	1.765	1.999	2.342	2.643	2.733	2.846	3.000	3.249	3.997
70	.692	.909	1.08	1.25	1.41	1.57	1.763	1.994	2.335	2.632	2.721	2.833	2.984	3.229	3.961
80	.692	.909	1.08	1.25	1.40	1.57	1.760	1.991	2.329	2.624	2.712	2.823	2.972	3.214	3.934
90	.692	.909	1.08	1.25	1.40	1.57	1.759	1.988	2.325	2.618	2.705	2.815	2.963	3.203	3.913
100	.692	.909	1.08	1.24	1.40	1.57	1.757	1.986	2.321	2.613	2.700	2.809	2.956	3.193	3.897
120	.692	.909	1.08	1.24	1.40	1.57	1.755	1.983	2.316	2.605	2.692	2.800	2.945	3.180	3.872
240	.692	.909	1.08	1.24	1.40	1.57	1.751	1.976	2.304	2.587	2.672	2.777	2.918	3.146	3.812
∞	.693	.909	1.08	1.24	1.40	1.56	1.746	1.968	2.291	2.569	2.652	2.754	2.892	3.113	3.754

HSD Statistics for $df_{EFFECT} = 4$ and the Given Two-Tailed Probabilities (p) and df_{ERROR}

							Two-	Tailed p	Values						
df _{ERROR}	.90	.80	.70	.60	.50	.40	.30	.20	.10	.05	.04	.03	.02	.01	.001
2	.834	1.11	1.36	1.62	1.92	2.29	2.800	3.605	5.330	7.694	8.637	10.01	12.31	17.48	55.467
3	.847	1.10	1.33	1.55	1.80	2.09	2.466	3.013	4.057	5.304	5.762	6.397	7.394	9.422	20.596
4	.855	1.10	1.31	1.52	1.75	2.00	2.317	2.762	3.560	4.446	4.756	5.176	5.813	7.042	12.888
5	.861	1.10	1.31	1.51	1.71	1.95	2.234	2.624	3.298	4.012	4.254	4.578	5.059	5.955	9.850
6	.865	1.10	1.30	1.49	1.69	1.91	2.180	2.537	3.136	3.751	3.956	4.227	4.622	5.343	8.287
7	.868	1.10	1.30	1.49	1.68	1.89	2.143	2.477	3.027	3.578	3.759	3.996	4.339	4.953	7.351
8	.871	1.10	1.30	1.48	1.67	1.87	2.115	2.433	2.948	3.455	3.619	3.834	4.141	4.684	6.733
9	.873	1.11	1.30	1.48	1.66	1.86	2.094	2.399	2.888	3.363	3.515	3.713	3.995	4.488	6.297
10	.874	1.11	1.30	1.47	1.65	1.85	2.077	2.373	2.841	3.291	3.435	3.620	3.883	4.339	5.975
11	.876	1.11	1.29	1.47	1.65	1.84	2.064	2.351	2.804	3.234	3.371	3.546	3.794	4.222	5.726
12	.877	1.11	1.29	1.47	1.64	1.83	2.052	2.333	2.773	3.187	3.318	3.486	3.722	4.127	5.530
13	.878	1.11	1.29	1.47	1.64	1.83	2.043	2.318	2.747	3.149	3.275	3.437	3.663	4.049	5.370
14	.879	1.11	1.29	1.46	1.64	1.82	2.035	2.306	2.725	3.116	3.238	3.395	3.613	3.984	5.239
15	.880	1.11	1.29	1.46	1.63	1.82	2.028	2.295	2.706	3.088	3.207	3.359	3.570	3.929	5.128
16	.880	1.11	1.29	1.46	1.63	1.81	2.022	2.285	2.690	3.064	3.180	3.328	3.534	3.881	5.034
17	.881	1.11	1.29	1.46	1.63	1.81	2.016	2.277	2.676	3.042	3.156	3.301	3.502	3.840	4.953
18	.882	1.11	1.29	1.46	1.63	1.81	2.012	2.270	2.663	3.024	3.135	3.277	3.474	3.803	4.882
19	.882	1.11	1.29	1.46	1.63	1.80	2.007	2.263	2.652	3.007	3.117	3.256	3.449	3.771	4.820
20	.883	1.11	1.29	1.46	1.62	1.80	2.004	2.257	2.642	2.992	3.101	3.237	3.427	3.743	4.766
21	.883	1.11	1.29	1.46	1.62	1.80	2.000	2.252	2.633	2.979	3.086	3.221	3.407	3.717	4.717
22	.883	1.11	1.29	1.46	1.62	1.80	1.997	2.247	2.625	2.967	3.072	3.205	3.389	3.694	4.673
23	.884	1.11	1.29	1.46	1.62	1.80	1.994	2.243	2.617	2.956	3.060	3.192	3.373	3.674	4.634
24	.884	1.11	1.29	1.45	1.62	1.79	1.992	2.238	2.611	2.946	3.049	3.179	3.358	3.655	4.598
25	.884	1.11	1.29	1.45	1.62	1.79	1.989	2.235	2.604	2.937	3.039	3.167	3.344	3.637	4.565
26	.885	1.11	1.29	1.45	1.62	1.79	1.987	2.231	2.599	2.928	3.029	3.157	3.332	3.621	4.536
27	.885	1.11	1.29	1.45	1.62	1.79	1.985	2.228	2.593	2.921	3.021	3.147	3.320	3.607	4.508
28	.885	1.11	1.29	1.45	1.62	1.79	1.983	2.225	2.588	2.913	3.013	3.138	3.310	3.593	4.483
29	.885	1.11	1.29	1.45	1.62	1.79	1.981	2.223	2.584	2.907	3.005	3.130	3.300	3.581	4.460
30	.886	1.11	1.29	1.45	1.61	1.79	1.980	2.220	2.579	2.901	2.999	3.122	3.291	3.569	4.439
35	.886	1.11	1.29	1.45	1.61	1.78	1.973	2.210	2.562	2.875	2.970	3.090	3.253	3.522	4.351
40	.887	1.11	1.29	1.45	1.61	1.78	1.968	2.202	2.549	2.856	2.949	3.066	3.226	3.487	4.287
45	.888	1.11	1.29	1.45	1.61	1.78	1.964	2.196	2.539	2.841	2.933	3.048	3.204	3.460	4.239
50	.888	1.11	1.29	1.45	1.61	1.77	1.961	2.191	2.531	2.830	2.920	3.033	3.187	3.438	4.200
55	.888	1.11	1.29	1.45	1.61	1.77	1.958	2.187	2.524	2.820	2.910	3.022	3.174	3.421	4.169
60	.889	1.11	1.29	1.45	1.61	1.77	1.956	2.184	2.519	2.812	2.901	3.012	3.162	3.407	4.144
70	.889	1.11	1.29	1.45	1.60	1.77	1.953	2.178	2.510	2.800	2.887	2.996	3.144	3.384	4.104
80	.889	1.11	1.29	1.45	1.60	1.77	1.950	2.175	2.504	2.791	2.877	2.985	3.131	3.368	4.074
90	.890	1.11	1.29	1.45	1.60	1.77	1.948	2.172	2.499	2.784	2.869	2.976	3.121	3.355	4.052
100	.890	1.11	1.29	1.45	1.60	1.76	1.946	2.169	2.495	2.778	2.863	2.969	3.113	3.345	4.034
120	.890	1.11	1.29	1.44	1.60	1.76	1.944	2.166	2.489	2.770	2.854	2.959	3.100	3.329	4.007
240	.891	1.11	1.29	1.44	1.60	1.76	1.938	2.157	2.474	2.749	2.831	2.933	3.070	3.292	3.942
∞	.892	1.11	1.29	1.44	1.60	1.76	1.932	2.148	2.460	2.728	2.808	2.907	3.040	3.255	3.878