TABLE B.5: Critical Values of the q Distribution, for the Tukey Test

$\alpha = \mathbf{0.50}$

ν	k: 2	3	4	5	6	7	8	9	10
1	1.414	2.338	2.918	3.335	3.658	3.920	4.139	4.327	4.491
2	1.155	1.908	2.377	2.713	2.973	3.184	3.361	3.513	3.645
3	1.082	1.791	2.230	2.545	2.789	2.986	3.152	3.294	3.418
4	1.048	1.736	2.163	2.468	2.704	2.895	3.055	3.193	3.313
5	1.028	1.705	2.124	2.423	2.655	2.843	3.000	3.135	3.253
6	1.015	1.684	2.098	2.394	2.623	2.808	2.964	3.097	3.213
7	1.006	1.670	2.080	2.374	2.601	2.784	2.938	3.070	3.186
8	0.999	1.659	2.067	2.359	2.584	2.767	2.919	3.051	3.165
9	0.994	1.651	2.057	2.347	2.571	2.753	2.905	3.035	3.149
10	0.990	1.645	2.049	2.338	2.561	2.742	2.893	3.023	3.137
11	0.986	1.639	2.042	2.330	2.553	2.733	2.884	3.013	3.127
12	0.984	1.635	2.037	2.324	2.546	2.726	2.876	3.005	3.118
13	0.981	1.631	2.032	2.319	2.540	2.719	2.869	2.998	3.111
14	0.979	1.628	2.028	2.314	2.535	2.714	2.864	2.992	3.105
15	0.978	1.625	2.025	2.310	2.531	2.709	2.859	2.987	3.099
16	0.976	1.623	2.022	2.307	2.527	2.705	2.855	2.983	3.095
17	0.975	1.621	2.019	2.304	2.524	2.702	2.851	2.979	3.090
18	0.973	1.619	2.017	2.301	2.521	2.699	2.848	2.975	3.087
19	0.972	1.617	2.015	2.299	2.518	2.696	2.845	2.972	3.084
20	0.972	1.616	2.013	2.297	2.516	2.693	2.842	2.969	3.081
24	0.969	1.611	2.007	2.290	2.508	2.685	2.833	2.960	3.071
30	0.966	1.606	2.001	2.283	2.501	2.677	2.825	2.951	3.062
40	0.963	1.602	1.996	2.277	2.494	2.669	2.816	2.942	3.053
60	0.960	1.597	1.990	2.270	2.486	2.661	2.808	2.933	3.043
120	0.957	1.592	1.984	2.263	2.479	2.653	2.799	2.924	3.034
∞	0.954	1.588	1.978	2.257	2.472	2.645	2.791	2.915	3.024

TABLE B.5 (cont.): Critical Values of the q Distribution, for the Tukey Test

$\alpha = 0.50$

ν	k: 11	12	13	14	15	16	17	18	19
1	4.637	4.767	4.885	4.992	5.091	5.182	5.266	5.345	5.419
2	3.762	3.867	3.963	4.049	4.129	4.203	4.271	4.335	4.394
3	3.528	3.626	3.715	3.796	3.871	3.940	4.004	4.064	4.120
4	3.419	3.515	3.601	3.680	3.752	3.819	3.881	3.939	3.993
5	3.357	3.451	3.535	3.613	3.684	3.749	3.810	3.867	3.920
6	3.317	3.409	3.493	3.569	3.639	3.704	3.764	3.820	3.873
7	3.288	3.380	3.463	3.538	3.608	3.672	3.732	3.787	3.840
8	3.267	3.358	3.440	3.515	3.584	3.648	3.708	3.763	3.815
9	3.250	3.341	3.423	3.498	3.566	3.630	3.689	3.744	3.796
10	3.237	3.328	3.409	3.484	3.552	3.615	3.674	3.729	3.780
11	3.227	3.317	3.398	3.472	3.540	3.603	3.662	3.717	3.768
12	3.218	3.308	3.389	3.463	3.531	3.594	3.652	3.706	3.757
13	3.210	3.300	3.381	3.455	3.522	3.585	3.643	3.698	3.749
14	3.204	3.293	3.374	3.448	3.515	3.578	3.636	3.690	3.741
15	3.199	3.288	3.368	3.442	3.509	3.572	3.630	3.684	3.735
16	3.194	3.283	3.363	3.436	3.504	3.566	3.624	3.678	3.729
17	3.189	3.278	3.359	3.432	3.499	3.561	3.619	3.673	3.724
18	3.186	3.274	3.354	3.428	3.495	3.557	3.615	3.669	3.719
19	3.182	3.271	3.351	3.424	3.491	3.553	3.611	3.665	3.715
20	3.179	3.268	3.348	3.421	3.488	3.550	3.607	3.661	3.712
24	3.170	3.258	3.337	3.410	3.477	3.539	3.596	3.650	3.700
30	3.160	3.248	3.327	3.400	3.466	3.528	3.585	3.638	3.688
40	3.150	3.238	3.317	3.389	3.455	3.517	3.574	3.627	3.677
60	3.140	3.227	3.306	3.378	3.444	3.505	3.562	3.615	3.665
120	3.130	3.217	3.296	3.367	3.433	3.494	3.550	3.603	3.652
∞	3.121	3.207	3.285	3.356	3.422	3.482	3.538	3.591	3.640

TABLE B.5 (cont.): Critical Values of the q Distribution, for the Tukey Test

$\alpha = 0.50$

ν	k: 20	22	24	26	28	30	32	34	36
1	5.489	5.616	5.731	5.835	5.930	6.017	6.098	6.173	6.244
2	4.451	4.554	4.646	4.730	4.807	4.878	4.943	5.004	5.061
3	4.172	4.269	4.356	4.434	4.506	4.573	4.634	4.691	4.745
4	4.044	4.138	4.222	4.298	4.368	4.432	4.492	4.547	4.599
5	3.970	4.062	4.145	4.220	4.288	4.351	4.410	4.464	4.515
6	3.922	4.013	4.095	4.169	4.237	4.299	4.357	4.410	4.461
7	3.889	3.979	4.059	4.133	4.200	4.262	4.319	4.372	4.422
8	3.863	3.953	4.033	4.106	4.173	4.234	4.291	4.344	4.394
9	3.844	3.933	4.013	4.086	4.152	4.213	4.270	4.322	4.372
10	3.829	3.917	3.997	4.069	4.135	4.196	4.253	4.305	4.354
11	3.816	3.904	3.984	4.056	4.122	4.182	4.239	4.291	4.340
12	3.805	3.893	3.973	4.045	4.110	4.171	4.227	4.279	4.328
13	3.796	3.884	3.963	4.035	4.101	4.161	4.217	4.269	4.318
14	3.789	3.877	3.955	4.027	4.092	4.153	4.209	4.260	4.309
15	3.782	3.870	3.948	4.020	4.085	4.145	4.201	4.253	4.301
16	3.776	3.864	3.942	4.014	4.079	4.139	4.195	4.246	4.295
17	3.771	3.859	3.937	4.008	4.073	4.133	4.189	4.241	4.289
18	3.767	3.854	3.932	4.003	4.068	4.128	4.184	4.236	4.284
19	3.763	3.850	3.928	3.999	4.064	4.124	4.179	4.231	4.279
20	3.759	3.846	3.924	3.995	4.060	4.120	4.175	4.227	4.275
24	3.747	3.834	3.912	3.983	4.047	4.107	4.162	4.213	4.261
30	3.735	3.822	3.899	3.970	4.034	4.094	4.149	4.200	4.248
40	3.723	3.809	3.887	3.957	4.021	4.080	4.135	4.186	4.234
60	3.711	3.797	3.874	3.944	4.008	4.067	4.121	4.172	4.219
120	3.699	3.784	3.861	3.930	3.994	4.052	4.107	4.157	4.204
∞	3.686	3.771	3.847	3.916	3.979	4.037	4.091	4.141	4.188

TABLE B.5 (cont.): Critical Values of the q Distribution, for the Tukey Test

$\alpha = 0.50$

ν	k: 38	40	50	60	70	80	90	100
1	6.310	6.372	6.637	6.847	7.021	7.169	7.297	7.411
2	5.114	5.165	5.379	5.549	5.690	5.810	5.914	6.006
3	4.795	4.842	5.043	5.202	5.334	5.447	5.544	5.630
4	4.647	4.693	4.888	5.043	5.171	5.279	5.374	5.457
5	4.563	4.608	4.799	4.951	5.077	5.184	5.276	5.358
6	4.508	4.552	4.741	4.891	5.016	5.121	5.213	5.294
7	4.469	4.513	4.700	4.849	4.973	5.077	5.168	5.249
8	4.440	4.484	4.670	4.818	4.941	5.045	5.135	5.215
9	4.418	4.461	4.647	4.794	4.916	5.020	5.110	5.189
10	4.400	4.443	4.628	4.775	4.896	5.000	5.089	5.168
11	4.386	4.429	4.613	4.759	4.880	4.983	5.073	5.152
12	4.374	4.417	4.600	4.746	4.867	4.970	5.059	5.138
13	4.363	4.406	4.590	4.735	4.856	4.958	5.047	5.126
14	4.355	4.397	4.580	4.726	4.846	4.948	5.037	5.116
15	4.347	4.390	4.572	4.718	4.838	4.940	5.028	5.107
16	4.340	4.383	4.565	4.710	4.830	4.932	5.021	5.099
17	4.334	4.377	4.559	4.704	4.824	4.926	5.014	5.092
18	4.329	4.372	4.554	4.698	4.818	4.920	5.008	5.086
19	4.324	4.367	4.549	4.693	4.813	4.914	5.002	5.080
20	4.320	4.363	4.544	4.688	4.808	4.909	4.998	5.075
24	4.306	4.349	4.530	4.674	4.793	4.894	4.982	5.060
30	4.293	4.335	4.515	4.659	4.777	4.878	4.966	5.043
40	4.278	4.321	4.500	4.643	4.761	4.862	4.949	5.027
60	4.264	4.306	4.485	4.627	4.745	4.845	4.932	5.009
120	4.249	4.290	4.468	4.610	4.727	4.827	4.913	4.990
∞	4.232	4.274	4.450	4.591	4.707	4.806	4.892	4.968

TABLE B.5 (cont.): Critical Values of the q Distribution, for the Tukey Test

$\alpha = 0.20$

ν	k: 2	3	4	5	6	7	8	9	10
1	4.353	6.615	8.075	9.138	9.966	10.641	11.207	11.694	12.120
2	2.667	3.820	4.559	5.098	5.521	5.867	6.158	6.409	6.630
3	2.316	3.245	3.833	4.261	4.597	4.872	5.104	5.305	5.480
4	2.168	3.004	3.526	3.907	4.205	4.449	4.655	4.832	4.989
5	2.087	2.872	3.358	3.712	3.988	4.214	4.405	4.570	4.715
6	2.036	2.788	3.252	3.588	3.850	4.065	4.246	4.403	4.540
7	2.001	2.731	3.179	3.503	3.755	3.962	4.136	4.287	4.419
8	1.975	2.689	3.126	3.440	3.686	3.886	4.055	4.201	4.329
9	1.956	2.657	3.085	3.393	3.632	3.828	3.993	4.136	4.261
10	1.941	2.632	3.053	3.355	3.590	3.782	3.944	4.084	4.206
11	1.928	2.612	3.027	3.325	3.556	3.745	3.904	4.042	4.162
12	1.918	2.596	3.006	3.300	3.528	3.715	3.871	4.007	4.126
13	1.909	2.582	2.988	3.279	3.505	3.689	3.844	3.977	4.095
14	1.902	2.570	2.973	3.261	3.485	3.667	3.820	3.952	4.068
15	1.896	2.560	2.960	3.245	3.467	3.648	3.800	3.931	4.046
16	1.890	2.551	2.948	3.232	3.452	3.631	3.782	3.912	4.026
17	1.886	2.543	2.938	3.220	3.439	3.617	3.766	3.895	4.008
18	1.881	2.536	2.929	3.210	3.427	3.604	3.752	3.880	3.993
19	1.878	2.530	2.921	3.200	3.416	3.592	3.740	3.867	3.979
20	1.874	2.524	2.914	3.192	3.407	3.582	3.729	3.855	3.966
24	1.864	2.507	2.892	3.166	3.377	3.549	3.694	3.818	3.927
30	1.853	2.490	2.870	3.140	3.348	3.517	3.659	3.781	3.887
40	1.843	2.473	2.848	3.114	3.318	3.484	3.624	3.743	3.848
60	1.833	2.456	2.826	3.088	3.289	3.452	3.589	3.706	3.809
120	1.822	2.440	2.805	3.063	3.260	3.420	3.554	3.669	3.770
∞	1.812	2.424	2.784	3.037	3.232	3.389	3.520	3.632	3.730

TABLE B.5 (cont.): Critical Values of the q Distribution, for the Tukey Test

$\alpha = 0.20$

ν	k: 11	12	13	14	15	16	17	18	19
1	12.498	12.837	13.144	13.425	13.682	13.921	14.142	14.348	14.542
2	6.826	7.002	7.162	7.308	7.442	7.566	7.682	7.790	7.891
3	5.637	5.778	5.906	6.023	6.130	6.230	6.323	6.410	6.491
4	5.128	5.253	5.367	5.471	5.566	5.655	5.738	5.815	5.888
5	4.844	4.960	5.066	5.162	5.251	5.334	5.411	5.482	5.550
6	4.663	4.773	4.873	4.965	5.049	5.128	5.200	5.269	5.333
7	4.537	4.643	4.739	4.827	4.908	4.984	5.054	5.119	5.181
8	4.444	4.546	4.640	4.725	4.804	4.877	4.945	5.009	5.069
9	4.372	4.473	4.564	4.647	4.724	4.795	4.862	4.924	4.982
10	4.316	4.414	4.503	4.585	4.660	4.730	4.795	4.856	4.913
11	4.270	4.366	4.454	4.534	4.608	4.677	4.741	4.801	4.857
12	4.231	4.327	4.413	4.492	4.565	4.633	4.696	4.755	4.810
13	4.199	4.293	4.378	4.457	4.529	4.595	4.658	4.716	4.770
14	4.172	4.265	4.349	4.426	4.497	4.563	4.625	4.682	4.736
15	4.148	4.240	4.323	4.400	4.470	4.536	4.597	4.654	4.707
16	4.127	4.218	4.301	4.377	4.447	4.512	4.572	4.628	4.681
17	4.109	4.199	4.281	4.357	4.426	4.490	4.550	4.606	4.658
18	4.093	4.182	4.264	4.339	4.407	4.471	4.531	4.586	4.638
19	4.078	4.167	4.248	4.323	4.391	4.454	4.513	4.568	4.620
20	4.065	4.154	4.234	4.308	4.376	4.439	4.498	4.552	4.604
24	4.024	4.111	4.190	4.262	4.329	4.390	4.448	4.502	4.552
30	3.982	4.068	4.145	4.216	4.281	4.342	4.398	4.451	4.500
40	3.941	4.025	4.101	4.170	4.234	4.293	4.348	4.399	4.447
60	3.900	3.982	4.056	4.124	4.186	4.244	4.297	4.347	4.394
120	3.859	3.938	4.011	4.077	4.138	4.194	4.246	4.295	4.341
∞	3.817	3.895	3.966	4.030	4.089	4.144	4.195	4.242	4.287

TABLE B.5 (cont.): Critical Values of the q Distribution, for the Tukey Test

$\alpha = 0.20$

ν	k: 20	22	24	26	28	30	32	34	36
1	14.724	15.058	15.359	15.632	15.881	16.111	16.324	16.522	16.707
2	7.986	8.162	8.319	8.463	8.594	8.715	8.827	8.931	9.029
3	6.567	6.708	6.835	6.951	7.056	7.154	7.244	7.328	7.407
4	5.956	6.081	6.195	6.298	6.392	6.479	6.560	6.635	6.705
5	5.613	5.730	5.835	5.931	6.019	6.100	6.175	6.245	6.311
6	5.393	5.504	5.604	5.695	5.779	5.856	5.927	5.994	6.056
7	5.239	5.346	5.442	5.530	5.610	5.684	5.753	5.817	5.877
8	5.125	5.228	5.322	5.407	5.485	5.557	5.624	5.686	5.744
9	5.037	5.138	5.229	5.312	5.388	5.459	5.524	5.585	5.641
10	4.967	5.066	5.155	5.237	5.311	5.380	5.444	5.503	5.559
11	4.910	5.007	5.095	5.175	5.248	5.316	5.379	5.437	5.492
12	4.862	4.958	5.044	5.123	5.195	5.262	5.324	5.382	5.436
13	4.822	4.916	5.002	5.080	5.151	5.217	5.278	5.335	5.388
14	4.787	4.881	4.965	5.042	5.113	5.178	5.238	5.295	5.347
15	4.757	4.850	4.934	5.010	5.079	5.144	5.204	5.259	5.312
16	4.731	4.823	4.906	4.981	5.050	5.114	5.173	5.229	5.280
17	4.708	4.799	4.881	4.956	5.025	5.088	5.147	5.202	5.253
18	4.687	4.778	4.859	4.934	5.002	5.065	5.123	5.177	5.228
19	4.669	4.759	4.840	4.913	4.981	5.044	5.101	5.156	5.206
20	4.652	4.741	4.822	4.895	4.963	5.025	5.082	5.136	5.186
24	4.599	4.687	4.766	4.838	4.903	4.964	5.021	5.073	5.122
30	4.546	4.632	4.709	4.779	4.844	4.903	4.958	5.010	5.058
40	4.493	4.576	4.652	4.720	4.783	4.841	4.895	4.945	4.992
60	4.439	4.520	4.594	4.661	4.722	4.778	4.831	4.880	4.925
120	4.384	4.463	4.535	4.600	4.659	4.714	4.765	4.812	4.857
∞	4.329	4.405	4.475	4.537	4.595	4.648	4.697	4.743	4.786

TABLE B.5 (cont.): Critical Values of the q Distribution, for the Tukey Test

$\alpha = 0.20$

ν	k: 38	40	50	60	70	80	90	100
1	16.881	17.044	17.743	18.298	18.757	19.148	19.487	19.786
2	9.121	9.207	9.576	9.869	10.112	10.319	10.499	10.658
3	7.481	7.551	7.848	8.086	8.282	8.450	8.596	8.724
4	6.771	6.834	7.100	7.312	7.489	7.639	7.769	7.885
5	6.372	6.430	6.678	6.876	7.041	7.181	7.303	7.410
6	6.114	6.170	6.406	6.595	6.751	6.884	7.001	7.103
7	5.934	5.987	6.214	6.396	6.547	6.676	6.788	6.887
8	5.799	5.851	6.072	6.248	6.395	6.520	6.629	6.725
9	5.695	5.745	5.961	6.134	6.277	6.399	6.506	6.600
10	5.612	5.661	5.873	6.042	6.182	6.302	6.407	6.499
11	5.543	5.592	5.800	5.967	6.105	6.223	6.325	6.416
12	5.487	5.535	5.740	5.904	6.040	6.156	6.257	6.347
13	5.438	5.486	5.688	5.850	5.985	6.099	6.199	6.288
14	5.397	5.444	5.644	5.804	5.937	6.051	6.150	6.237
15	5.361	5.407	5.605	5.764	5.896	6.008	6.106	6.193
16	5.329	5.375	5.572	5.729	5.859	5.971	6.068	6.154
17	5.301	5.347	5.542	5.698	5.827	5.938	6.034	6.119
18	5.276	5.321	5.515	5.670	5.798	5.908	6.004	6.088
19	5.254	5.299	5.491	5.644	5.772	5.881	5.976	6.060
20	5.233	5.278	5.469	5.622	5.749	5.857	5.951	6.035
24	5.169	5.212	5.400	5.549	5.674	5.780	5.872	5.954
30	5.103	5.146	5.329	5.475	5.597	5.701	5.791	5.871
40	5.037	5.078	5.257	5.399	5.518	5.619	5.708	5.786
60	4.968	5.009	5.183	5.321	5.437	5.535	5.621	5.697
120	4.898	4.938	5.106	5.240	5.352	5.447	5.530	5.603
∞	4.826	4.864	5.026	5.155	5.262	5.353	5.433	5.503

TABLE B.5 (cont.): Critical Values of the q Distribution, for the Tukey Test

$\alpha = 0.10$

ν	k: 2	3	4	5	6	7	8	9	10
1	8.929	13.437	16.358	18.488	20.150	21.504	22.642	23.621	24.477
2	4.129	5.733	6.772	7.538	8.139	8.633	9.049	9.409	9.725
3	3.328	4.467	5.199	5.738	6.162	6.511	6.806	7.062	7.287
4	3.015	3.976	4.586	5.035	5.388	5.679	5.926	6.139	6.327
5	2.850	3.717	4.264	4.664	4.979	5.238	5.458	5.648	5.816
6	2.748	3.558	4.065	4.435	4.726	4.966	5.168	5.344	5.499
7	2.679	3.451	3.931	4.280	4.555	4.780	4.971	5.137	5.283
8	2.630	3.374	3.834	4.169	4.431	4.646	4.829	4.987	5.126
9	2.592	3.316	3.761	4.084	4.337	4.545	4.721	4.873	5.007
10	2.563	3.270	3.704	4.018	4.264	4.465	4.636	4.783	4.913
11	2.540	3.234	3.658	3.965	4.205	4.401	4.567	4.711	4.838
12	2.521	3.204	3.621	3.921	4.156	4.349	4.511	4.652	4.776
13	2.504	3.179	3.589	3.885	4.116	4.304	4.464	4.602	4.724
14	2.491	3.158	3.563	3.854	4.081	4.267	4.424	4.560	4.679
15	2.479	3.140	3.540	3.828	4.052	4.235	4.390	4.524	4.641
16	2.469	3.124	3.520	3.804	4.026	4.207	4.360	4.492	4.608
17	2.460	3.110	3.503	3.784	4.003	4.182	4.334	4.464	4.579
18	2.452	3.098	3.487	3.766	3.984	4.161	4.310	4.440	4.553
19	2.445	3.087	3.474	3.751	3.966	4.142	4.290	4.418	4.530
20	2.439	3.077	3.462	3.736	3.950	4.124	4.271	4.398	4.510
24	2.420	3.047	3.423	3.692	3.900	4.070	4.213	4.336	4.445
30	2.400	3.017	3.386	3.648	3.851	4.016	4.155	4.275	4.381
40	2.381	2.988	3.348	3.605	3.802	3.963	4.099	4.215	4.317
60	2.363	2.959	3.312	3.562	3.755	3.911	4.042	4.155	4.254
120	2.344	2.930	3.276	3.520	3.707	3.859	3.986	4.096	4.191
∞	2.326	2.902	3.240	3.478	3.661	3.808	3.931	4.037	4.129

TABLE B.5 (cont.): Critical Values of the q Distribution, for the Tukey Test

$\alpha = 0.10$

ν	k: 11	12	13	14	15	16	17	18	19
1	25.237	25.918	26.536	27.100	27.618	28.097	28.542	28.958	29.347
2	10.006	10.259	10.488	10.698	10.891	11.070	11.237	11.392	11.538
3	7.487	7.667	7.831	7.982	8.120	8.248	8.368	8.479	8.584
4	6.494	6.645	6.783	6.909	7.025	7.132	7.233	7.326	7.414
5	5.965	6.100	6.223	6.336	6.439	6.536	6.626	6.710	6.788
6	5.637	5.762	5.875	5.979	6.075	6.164	6.247	6.325	6.398
7	5.413	5.530	5.637	5.735	5.826	5.910	5.988	6.061	6.130
8	5.250	5.362	5.464	5.558	5.644	5.724	5.799	5.869	5.935
9	5.126	5.234	5.333	5.423	5.506	5.583	5.655	5.722	5.786
10	5.029	5.134	5.229	5.316	5.397	5.472	5.542	5.607	5.668
11	4.951	5.053	5.145	5.231	5.309	5.382	5.450	5.514	5.573
12	4.886	4.986	5.076	5.160	5.236	5.308	5.374	5.436	5.495
13	4.832	4.930	5.019	5.100	5.175	5.245	5.310	5.371	5.429
14	4.786	4.882	4.969	5.050	5.124	5.192	5.256	5.316	5.372
15	4.746	4.841	4.927	5.006	5.079	5.146	5.209	5.268	5.324
16	4.712	4.805	4.890	4.968	5.040	5.106	5.169	5.227	5.282
17	4.681	4.774	4.857	4.934	5.005	5.071	5.133	5.190	5.244
18	4.654	4.746	4.829	4.905	4.975	5.040	5.101	5.158	5.211
19	4.630	4.721	4.803	4.878	4.948	5.012	5.072	5.129	5.182
20	4.609	4.699	4.780	4.855	4.923	4.987	5.047	5.103	5.155
24	4.541	4.628	4.707	4.780	4.847	4.909	4.966	5.020	5.071
30	4.474	4.559	4.635	4.706	4.770	4.830	4.886	4.939	4.988
40	4.408	4.490	4.564	4.632	4.694	4.752	4.806	4.857	4.904
60	4.342	4.421	4.493	4.558	4.619	4.675	4.727	4.775	4.821
120	4.276	4.353	4.422	4.485	4.543	4.597	4.647	4.694	4.738
∞	4.211	4.285	4.351	4.412	4.468	4.519	4.568	4.612	4.654

TABLE B.5 (cont.): Critical Values of the q Distribution, for the Tukey Test

$\alpha = 0.10$

ν	k: 20	22	24	26	28	30	32	34	36
1	29.713	30.386	30.990	31.540	32.042	32.505	32.933	33.332	33.705
2	11.676	11.928	12.156	12.363	12.552	12.727	12.889	13.039	13.180
3	8.683	8.864	9.028	9.177	9.314	9.440	9.557	9.666	9.768
4	7.497	7.650	7.788	7.914	8.029	8.135	8.234	8.326	8.412
5	6.863	7.000	7.123	7.236	7.339	7.435	7.523	7.606	7.683
6	6.466	6.593	6.708	6.812	6.908	6.996	7.078	7.155	7.227
7	6.195	6.314	6.422	6.521	6.611	6.695	6.772	6.845	6.913
8	5.997	6.111	6.214	6.308	6.395	6.475	6.549	6.618	6.683
9	5.845	5.956	6.055	6.146	6.229	6.306	6.378	6.444	6.507
10	5.726	5.833	5.930	6.017	6.098	6.173	6.242	6.307	6.368
11	5.630	5.734	5.828	5.913	5.992	6.065	6.132	6.195	6.255
12	5.550	5.652	5.744	5.827	5.904	5.975	6.041	6.103	6.161
13	5.483	5.583	5.673	5.755	5.830	5.900	5.965	6.025	6.082
14	5.426	5.524	5.612	5.693	5.767	5.836	5.899	5.959	6.014
15	5.376	5.473	5.560	5.639	5.712	5.780	5.843	5.901	5.956
16	5.333	5.428	5.514	5.593	5.665	5.731	5.793	5.851	5.905
17	5.295	5.389	5.474	5.552	5.623	5.688	5.749	5.806	5.860
18	5.262	5.354	5.438	5.515	5.585	5.650	5.711	5.767	5.820
19	5.232	5.323	5.407	5.482	5.552	5.616	5.676	5.732	5.784
20	5.205	5.296	5.378	5.453	5.522	5.586	5.645	5.700	5.752
24	5.119	5.208	5.287	5.360	5.427	5.489	5.546	5.599	5.650
30	5.034	5.120	5.197	5.267	5.332	5.391	5.447	5.499	5.547
40	4.949	5.032	5.106	5.174	5.236	5.294	5.347	5.397	5.444
60	4.864	4.944	5.015	5.081	5.141	5.196	5.247	5.295	5.340
120	4.779	4.856	4.924	4.987	5.044	5.097	5.146	5.192	5.235
∞	4.694	4.767	4.832	4.892	4.947	4.997	5.044	5.087	5.128

TABLE B.5 (cont.): Critical Values of the q Distribution, for the Tukey Test

$\alpha = 0.10$

ν	k: 38	40	50	60	70	80	90	100
1	34.054	34.384	35.790	36.908	37.832	38.619	39.302	39.906
2	13.313	13.438	13.971	14.396	14.748	15.047	15.308	15.538
3	9.863	9.954	10.340	10.648	10.904	11.121	11.311	11.478
4	8.493	8.569	8.896	9.156	9.373	9.557	9.718	9.860
5	7.756	7.824	8.118	8.353	8.548	8.714	8.859	8.987
6	7.294	7.358	7.630	7.848	8.029	8.184	8.319	8.438
7	6.976	7.036	7.294	7.500	7.672	7.818	7.946	8.059
8	6.744	6.801	7.048	7.245	7.409	7.550	7.672	7.780
9	6.566	6.621	6.859	7.049	7.208	7.343	7.461	7.566
10	6.425	6.478	6.709	6.894	7.048	7.180	7.294	7.396
11	6.310	6.363	6.588	6.768	6.918	7.046	7.158	7.257
12	6.215	6.267	6.487	6.663	6.810	6.936	7.045	7.142
13	6.135	6.186	6.402	6.575	6.719	6.842	6.949	7.045
14	6.067	6.116	6.329	6.499	6.641	6.762	6.867	6.961
15	6.008	6.056	6.265	6.433	6.573	6.692	6.796	6.888
16	5.956	6.004	6.210	6.376	6.513	6.631	6.734	6.825
17	5.910	5.958	6.161	6.325	6.461	6.577	6.679	6.769
18	5.870	5.917	6.118	6.280	6.414	6.529	6.629	6.718
19	5.833	5.880	6.079	6.239	6.372	6.486	6.585	6.673
20	5.801	5.847	6.044	6.202	6.334	6.447	6.546	6.633
24	5.697	5.741	5.933	6.086	6.214	6.323	6.419	6.503
30	5.593	5.636	5.821	5.969	6.093	6.198	6.290	6.372
40	5.488	5.529	5.708	5.850	5.969	6.071	6.160	6.238
60	5.382	5.422	5.593	5.730	5.844	5.941	6.026	6.101
120	5.275	5.313	5.476	5.606	5.715	5.808	5.888	5.960
∞	5.166	5.202	5.357	5.480	5.582	5.669	5.745	5.812

TABLE B.5 (cont.): Critical Values of the q Distribution, for the Tukey Test

$\alpha = 0.05$

ν	k: 2	3	4	5	6	7	8	9	10
1	17.969	26.976	32.819	37.082	40.408	43.119	45.397	47.357	49.071
2	6.085	8.331	9.798	10.881	11.734	12.435	13.027	13.539	13.988
3	4.501	5.910	6.825	7.502	8.037	8.478	8.852	9.177	9.462
4	3.926	5.040	5.757	6.287	6.706	7.053	7.347	7.602	7.826
5	3.635	4.602	5.218	5.673	6.033	6.330	6.582	6.801	6.995
6	3.460	4.339	4.896	5.305	5.628	5.895	6.122	6.319	6.493
7	3.344	4.165	4.681	5.060	5.359	5.606	5.815	5.997	6.158
8	3.261	4.041	4.529	4.886	5.167	5.399	5.596	5.767	5.918
9	3.199	3.948	4.415	4.755	5.024	5.244	5.432	5.595	5.738
10	3.151	3.877	4.327	4.654	4.912	5.124	5.304	5.460	5.598
11	3.113	3.820	4.256	4.574	4.823	5.028	5.202	5.353	5.486
12	3.081	3.773	4.199	4.508	4.750	4.950	5.119	5.265	5.395
13	3.055	3.734	4.151	4.453	4.690	4.884	5.049	5.192	5.318
14	3.033	3.701	4.111	4.407	4.639	4.829	4.990	5.130	5.253
15	3.014	3.673	4.076	4.367	4.595	4.782	4.940	5.077	5.198
16	2.998	3.649	4.046	4.333	4.557	4.741	4.896	5.031	5.150
17	2.984	3.628	4.020	4.303	4.524	4.705	4.858	4.991	5.108
18	2.971	3.609	3.997	4.276	4.494	4.673	4.824	4.955	5.071
19	2.960	3.593	3.977	4.253	4.468	4.645	4.794	4.924	5.037
20	2.950	3.578	3.958	4.232	4.445	4.620	4.768	4.895	5.008
24	2.919	3.532	3.901	4.166	4.373	4.541	4.684	4.807	4.915
30	2.888	3.486	3.845	4.102	4.301	4.464	4.601	4.720	4.824
40	2.858	3.442	3.791	4.039	4.232	4.388	4.521	4.634	4.735
60	2.829	3.399	3.737	3.977	4.163	4.314	4.441	4.550	4.646
120	2.800	3.356	3.685	3.917	4.096	4.241	4.363	4.468	4.560
∞	2.772	3.314	3.633	3.858	4.030	4.170	4.286	4.387	4.474

TABLE B.5 (cont.): Critical Values of the q Distribution, for the Tukey Test

$\alpha = 0.05$

ν	k: 11	12	13	14	15	16	17	18	19
1	50.592	51.957	53.194	54.323	55.361	56.320	57.212	58.044	58.824
2	14.389	14.749	15.076	15.375	15.650	15.905	16.143	16.365	16.573
3	9.717	9.946	10.155	10.346	10.522	10.686	10.838	10.980	11.114
4	8.027	8.208	8.373	8.524	8.664	8.793	8.914	9.027	9.133
5	7.167	7.323	7.466	7.596	7.716	7.828	7.932	8.030	8.122
6	6.649	6.789	6.917	7.034	7.143	7.244	7.338	7.426	7.508
7	6.302	6.431	6.550	6.658	6.759	6.852	6.939	7.020	7.097
8	6.053	6.175	6.287	6.389	6.483	6.571	6.653	6.729	6.801
9	5.867	5.983	6.089	6.186	6.276	6.359	6.437	6.510	6.579
10	5.722	5.833	5.935	6.028	6.114	6.194	6.269	6.339	6.405
11	5.605	5.713	5.811	5.901	5.984	6.062	6.134	6.202	6.265
12	5.510	5.615	5.710	5.797	5.878	5.953	6.023	6.089	6.151
13	5.431	5.533	5.625	5.711	5.789	5.862	5.931	5.995	6.055
14	5.364	5.463	5.554	5.637	5.714	5.785	5.852	5.915	5.973
15	5.306	5.403	5.492	5.574	5.649	5.719	5.785	5.846	5.904
16	5.256	5.352	5.439	5.519	5.593	5.662	5.726	5.786	5.843
17	5.212	5.306	5.392	5.471	5.544	5.612	5.675	5.734	5.790
18	5.173	5.266	5.351	5.429	5.501	5.567	5.629	5.688	5.743
19	5.139	5.231	5.314	5.391	5.462	5.528	5.589	5.647	5.701
20	5.108	5.199	5.282	5.357	5.427	5.492	5.553	5.610	5.663
24	5.012	5.099	5.179	5.251	5.319	5.381	5.439	5.494	5.545
30	4.917	5.001	5.077	5.147	5.211	5.271	5.327	5.379	5.429
40	4.824	4.904	4.977	5.044	5.106	5.163	5.216	5.266	5.313
60	4.732	4.808	4.878	4.942	5.001	5.056	5.107	5.154	5.199
120	4.641	4.714	4.781	4.842	4.898	4.950	4.998	5.043	5.086
∞	4.552	4.622	4.685	4.743	4.796	4.845	4.891	4.934	4.974

TABLE B.5 (cont.): Critical Values of the q Distribution, for the Tukey Test

$\alpha = 0.05$

ν	k: 20	22	24	26	28	30	32	34	36
1	59.558	60.904	62.116	63.216	64.222	65.149	66.007	66.806	67.553
2	16.769	17.129	17.454	17.749	18.020	18.269	18.500	18.715	18.917
3	11.240	11.472	11.681	11.872	12.046	12.207	12.357	12.496	12.627
4	9.233	9.418	9.584	9.736	9.875	10.003	10.123	10.234	10.338
5	8.208	8.367	8.512	8.643	8.763	8.875	8.978	9.075	9.165
6	7.586	7.730	7.861	7.979	8.088	8.189	8.282	8.370	8.452
7	7.169	7.302	7.423	7.533	7.634	7.727	7.814	7.895	7.971
8	6.869	6.995	7.108	7.212	7.307	7.395	7.477	7.553	7.625
9	6.643	6.763	6.871	6.970	7.061	7.144	7.222	7.295	7.363
10	6.467	6.582	6.686	6.780	6.867	6.948	7.023	7.093	7.158
11	6.325	6.436	6.536	6.628	6.712	6.790	6.862	6.930	6.993
12	6.209	6.316	6.414	6.503	6.584	6.660	6.730	6.796	6.857
13	6.112	6.216	6.311	6.398	6.477	6.551	6.620	6.684	6.744
14	6.029	6.131	6.224	6.309	6.387	6.459	6.526	6.588	6.647
15	5.958	6.058	6.149	6.232	6.308	6.379	6.445	6.506	6.563
16	5.896	5.995	6.084	6.166	6.240	6.310	6.374	6.434	6.491
17	5.842	5.939	6.027	6.107	6.181	6.249	6.312	6.371	6.427
18	5.794	5.890	5.976	6.055	6.128	6.195	6.257	6.316	6.370
19	5.752	5.846	5.931	6.009	6.081	6.147	6.209	6.266	6.320
20	5.714	5.807	5.891	5.968	6.039	6.104	6.165	6.222	6.275
24	5.594	5.683	5.764	5.838	5.905	5.968	6.027	6.081	6.132
30	5.475	5.561	5.638	5.709	5.773	5.833	5.889	5.941	5.990
40	5.358	5.439	5.513	5.580	5.642	5.700	5.753	5.802	5.849
60	5.241	5.319	5.389	5.453	5.512	5.566	5.617	5.664	5.708
120	5.126	5.200	5.266	5.327	5.382	5.434	5.481	5.526	5.567
∞	5.012	5.081	5.144	5.201	5.253	5.301	5.346	5.388	5.427

TABLE B.5 (cont.): Critical Values of the q Distribution, for the Tukey Test

$\alpha = 0.05$

ν	k: 38	40	50	60	70	80	90	100
1	68.254	68.914	71.730	73.969	75.822	77.398	78.767	79.976
2	19.106	19.284	20.046	20.654	21.157	21.585	21.958	22.287
3	12.749	12.865	13.359	13.754	14.082	14.361	14.604	14.819
4	10.436	10.528	10.924	11.240	11.503	11.727	11.922	12.094
5	9.250	9.330	9.674	9.949	10.178	10.373	10.543	10.694
6	8.529	8.601	8.913	9.162	9.370	9.547	9.702	9.839
7	8.043	8.110	8.400	8.631	8.824	8.989	9.133	9.261
8	7.692	7.756	8.029	8.248	8.430	8.586	8.722	8.843
9	7.428	7.488	7.749	7.958	8.132	8.281	8.411	8.526
10	7.220	7.278	7.529	7.730	7.897	8.041	8.166	8.276
11	7.053	7.109	7.352	7.546	7.708	7.847	7.968	8.075
12	6.915	6.970	7.205	7.394	7.552	7.687	7.804	7.908
13	6.800	6.853	7.083	7.267	7.421	7.552	7.667	7.769
14	6.702	6.754	6.978	7.159	7.309	7.437	7.550	7.649
15	6.618	6.669	6.888	7.065	7.212	7.338	7.449	7.546
16	6.544	6.594	6.810	6.983	7.128	7.252	7.360	7.456
17	6.479	6.529	6.741	6.912	7.054	7.176	7.282	7.377
18	6.422	6.471	6.680	6.848	6.988	7.108	7.213	7.307
19	6.371	6.419	6.625	6.791	6.930	7.048	7.152	7.244
20	6.325	6.372	6.576	6.740	6.877	6.994	7.096	7.187
24	6.180	6.226	6.421	6.578	6.710	6.822	6.920	7.007
30	6.036	6.080	6.267	6.417	6.542	6.650	6.744	6.827
40	5.893	5.934	6.112	6.255	6.375	6.477	6.566	6.645
60	5.750	5.789	5.958	6.093	6.206	6.302	6.387	6.462
120	5.607	5.644	5.802	5.929	6.035	6.126	6.205	6.275
∞	5.463	5.498	5.646	5.764	5.863	5.947	6.020	6.085

TABLE B.5 (cont.): Critical Values of the q Distribution, for the Tukey Test

$\alpha = 0.025$

ν	k: 2	3	4	5	6	7	8	9	10
1	35.994	54.002	65.689	74.215	80.869	86.292	90.851	94.770	98.200
2	8.776	11.937	14.009	15.542	16.750	17.743	18.582	19.308	19.946
3	5.907	7.661	8.808	9.660	10.335	10.892	11.364	11.774	12.136
4	4.943	6.244	7.088	7.715	8.213	8.625	8.975	9.279	9.548
5	4.474	5.558	6.257	6.775	7.186	7.526	7.816	8.068	8.291
6	4.198	5.158	5.772	6.226	6.586	6.884	7.138	7.359	7.554
7	4.018	4.897	5.455	5.867	6.194	6.464	6.694	6.894	7.071
8	3.891	4.714	5.233	5.616	5.919	6.169	6.382	6.567	6.731
9	3.797	4.578	5.069	5.430	5.715	5.950	6.151	6.325	6.479
10	3.725	4.474	4.943	5.286	5.558	5.782	5.972	6.138	6.284
11	3.667	4.391	4.843	5.173	5.433	5.648	5.830	5.989	6.130
12	3.620	4.324	4.761	5.080	5.332	5.539	5.715	5.868	6.004
13	3.582	4.269	4.694	5.004	5.248	5.449	5.620	5.768	5.899
14	3.549	4.222	4.638	4.940	5.178	5.373	5.540	5.684	5.812
15	3.521	4.182	4.589	4.885	5.117	5.309	5.471	5.612	5.736
16	3.497	4.148	4.548	4.838	5.065	5.253	5.412	5.550	5.671
17	3.476	4.118	4.511	4.797	5.020	5.204	5.360	5.495	5.615
18	3.458	4.091	4.479	4.760	4.980	5.161	5.315	5.448	5.565
19	3.441	4.068	4.451	4.728	4.945	5.123	5.274	5.405	5.521
20	3.427	4.047	4.426	4.699	4.914	5.089	5.238	5.367	5.481
24	3.381	3.982	4.347	4.610	4.816	4.984	5.126	5.250	5.358
30	3.337	3.919	4.271	4.523	4.720	4.881	5.017	5.134	5.238
40	3.294	3.858	4.196	4.439	4.627	4.780	4.910	5.022	5.120
60	3.251	3.798	4.124	4.356	4.536	4.682	4.806	4.912	5.006
120	3.210	3.739	4.053	4.275	4.447	4.587	4.704	4.805	4.894
∞	3.170	3.682	3.984	4.197	4.361	4.494	4.605	4.700	4.784

TABLE B.5 (cont.): Critical Values of the q Distribution, for the Tukey Test

$\alpha = 0.025$

ν	k: 11	12	13	14	15	16	17	18	19
1	101.244	103.975	106.449	108.708	110.784	112.704	114.487	116.153	117.713
2	20.513	21.024	21.488	21.913	22.304	22.666	23.003	23.318	23.614
3	12.458	12.749	13.013	13.255	13.479	13.686	13.879	14.060	14.230
4	9.788	10.004	10.202	10.383	10.550	10.705	10.850	10.985	11.112
5	8.490	8.670	8.834	8.984	9.124	9.253	9.373	9.486	9.593
6	7.729	7.887	8.031	8.163	8.285	8.399	8.505	8.605	8.698
7	7.230	7.373	7.504	7.624	7.735	7.838	7.935	8.025	8.110
8	6.878	7.011	7.132	7.244	7.347	7.442	7.532	7.616	7.694
9	6.617	6.742	6.856	6.961	7.057	7.148	7.232	7.311	7.385
10	6.415	6.534	6.642	6.742	6.834	6.920	7.000	7.075	7.145
11	6.255	6.369	6.473	6.568	6.656	6.738	6.815	6.887	6.955
12	6.125	6.235	6.335	6.426	6.511	6.591	6.664	6.734	6.799
13	6.017	6.123	6.220	6.309	6.391	6.468	6.539	6.606	6.670
14	5.926	6.029	6.123	6.210	6.290	6.364	6.434	6.499	6.560
15	5.848	5.948	6.040	6.125	6.203	6.275	6.343	6.407	6.467
16	5.780	5.879	5.969	6.051	6.128	6.199	6.265	6.327	6.386
17	5.722	5.818	5.906	5.987	6.062	6.132	6.197	6.258	6.315
18	5.670	5.765	5.851	5.931	6.004	6.073	6.137	6.196	6.253
19	5.624	5.717	5.803	5.881	5.953	6.020	6.083	6.142	6.197
20	5.583	5.675	5.759	5.836	5.907	5.974	6.035	6.093	6.148
24	5.455	5.543	5.623	5.696	5.764	5.827	5.886	5.941	5.993
30	5.330	5.414	5.490	5.560	5.624	5.684	5.740	5.792	5.841
40	5.208	5.287	5.360	5.426	5.487	5.543	5.596	5.646	5.692
60	5.089	5.164	5.232	5.295	5.352	5.406	5.456	5.502	5.546
120	4.972	5.043	5.107	5.166	5.221	5.271	5.318	5.362	5.403
∞	4.858	4.925	4.985	5.041	5.092	5.139	5.183	5.224	5.262

TABLE B.5 (cont.): Critical Values of the q Distribution, for the Tukey Test

$\alpha = 0.025$

ν	k: 20	22	24	26	28	30	32	34	36
1	119.181	121.875	124.299	126.500	128.513	130.368	132.085	133.683	135.178
2	23.892	24.404	24.865	25.285	25.669	26.023	26.352	26.658	26.944
3	14.390	14.684	14.950	15.192	15.414	15.619	15.809	15.986	16.152
4	11.232	11.454	11.653	11.836	12.003	12.157	12.300	12.434	12.559
5	9.693	9.878	10.045	10.197	10.337	10.466	10.586	10.698	10.803
6	8.787	8.949	9.097	9.231	9.355	9.469	9.575	9.674	9.767
7	8.191	8.339	8.473	8.595	8.708	8.812	8.909	8.999	9.084
8	7.769	7.907	8.031	8.145	8.249	8.346	8.436	8.520	8.599
9	7.455	7.584	7.702	7.809	7.907	7.999	8.083	8.162	8.237
10	7.212	7.335	7.447	7.549	7.642	7.729	7.810	7.885	7.956
11	7.018	7.136	7.243	7.341	7.431	7.514	7.591	7.664	7.732
12	6.860	6.974	7.077	7.171	7.258	7.338	7.413	7.483	7.548
13	6.729	6.839	6.939	7.030	7.114	7.192	7.264	7.332	7.395
14	6.618	6.725	6.822	6.911	6.993	7.068	7.139	7.204	7.266
15	6.523	6.628	6.722	6.809	6.889	6.962	7.031	7.095	7.155
16	6.441	6.543	6.636	6.720	6.798	6.870	6.937	7.000	7.059
17	6.369	6.469	6.560	6.643	6.719	6.790	6.856	6.917	6.975
18	6.306	6.404	6.493	6.575	6.650	6.719	6.783	6.844	6.900
19	6.250	6.346	6.434	6.514	6.588	6.656	6.719	6.779	6.834
20	6.199	6.295	6.381	6.460	6.532	6.599	6.662	6.720	6.775
24	6.042	6.133	6.215	6.290	6.359	6.422	6.482	6.537	6.589
30	5.888	5.974	6.052	6.123	6.188	6.248	6.305	6.357	6.406
40	5.736	5.818	5.891	5.958	6.020	6.077	6.130	6.179	6.226
60	5.588	5.664	5.733	5.796	5.854	5.908	5.957	6.004	6.048
120	5.442	5.513	5.578	5.637	5.691	5.741	5.787	5.831	5.871
∞	5.299	5.365	5.425	5.480	5.530	5.577	5.620	5.660	5.698

TABLE B.5 (cont.): Critical Values of the q Distribution, for the Tukey Test

$\alpha = 0.025$

ν	k: 38	40	50	60	70	80	90	100
1	136.580	137.900	143.535	148.016	151.722	154.876	157.616	160.034
2	27.213	27.466	28.550	29.413	30.128	30.738	31.267	31.736
3	16.308	16.455	17.084	17.586	18.003	18.359	18.668	18.942
4	12.677	12.788	13.264	13.645	13.962	14.232	14.467	14.675
5	10.902	10.995	11.396	11.716	11.982	12.210	12.408	12.584
6	9.855	9.937	10.291	10.575	10.812	11.014	11.190	11.346
7	9.163	9.239	9.562	9.822	10.038	10.222	10.384	10.527
8	8.673	8.743	9.044	9.286	9.487	9.660	9.810	9.943
9	8.307	8.373	8.657	8.885	9.075	9.238	9.380	9.507
10	8.023	8.085	8.356	8.574	8.755	8.910	9.046	9.166
11	7.795	7.856	8.116	8.324	8.499	8.648	8.778	8.894
12	7.610	7.668	7.919	8.120	8.289	8.433	8.559	8.670
13	7.455	7.511	7.754	7.950	8.113	8.253	8.375	8.484
14	7.324	7.379	7.615	7.806	7.964	8.100	8.219	8.325
15	7.212	7.265	7.496	7.682	7.837	7.969	8.086	8.189
16	7.114	7.167	7.392	7.574	7.726	7.856	7.969	8.070
17	7.029	7.080	7.301	7.479	7.628	7.756	7.867	7.966
18	6.954	7.004	7.221	7.396	7.542	7.667	7.777	7.874
19	6.887	6.936	7.150	7.322	7.465	7.589	7.696	7.792
20	6.827	6.876	7.086	7.255	7.397	7.518	7.624	7.718
24	6.639	6.685	6.885	7.046	7.180	7.295	7.396	7.486
30	6.453	6.497	6.686	6.838	6.965	7.075	7.170	7.255
40	6.270	6.311	6.489	6.633	6.752	6.855	6.945	7.025
60	6.089	6.127	6.294	6.428	6.540	6.636	6.720	6.795
120	5.910	5.946	6.101	6.225	6.329	6.418	6.495	6.564
∞	5.733	5.766	5.909	6.023	6.118	6.199	6.270	6.333

TABLE B.5 (cont.): Critical Values of the q Distribution, for the Tukey Test

$\alpha = 0.01$

ν	k: 2	3	4	5	6	7	8	9	10
1	90.024	135.041	164.258	185.575	202.210	215.769	227.166	236.966	245.542
2	14.036	19.019	22.294	24.717	26.629	28.201	29.530	30.679	31.689
3	8.260	10.619	12.170	13.324	14.241	14.998	15.641	16.199	16.691
4	6.511	8.120	9.173	9.958	10.583	11.101	11.542	11.925	12.264
5	5.702	6.976	7.804	8.421	8.913	9.321	9.669	9.971	10.239
6	5.243	6.331	7.033	7.556	7.972	8.318	8.612	8.869	9.097
7	4.949	5.919	6.542	7.005	7.373	7.678	7.939	8.166	8.367
8	4.745	5.635	6.204	6.625	6.959	7.237	7.474	7.680	7.863
9	4.596	5.428	5.957	6.347	6.657	6.915	7.134	7.325	7.494
10	4.482	5.270	5.769	6.136	6.428	6.669	6.875	7.054	7.213
11	4.392	5.146	5.621	5.970	6.247	6.476	6.671	6.841	6.992
12	4.320	5.046	5.502	5.836	6.101	6.320	6.507	6.670	6.814
13	4.260	4.964	5.404	5.726	5.981	6.192	6.372	6.528	6.666
14	4.210	4.895	5.322	5.634	5.881	6.085	6.258	6.409	6.543
15	4.167	4.836	5.252	5.556	5.796	5.994	6.162	6.309	6.438
16	4.131	4.786	5.192	5.489	5.722	5.915	6.079	6.222	6.348
17	4.099	4.742	5.140	5.430	5.659	5.847	6.007	6.147	6.270
18	4.071	4.703	5.094	5.379	5.603	5.787	5.944	6.081	6.201
19	4.046	4.669	5.054	5.334	5.553	5.735	5.889	6.022	6.141
20	4.024	4.639	5.018	5.293	5.510	5.688	5.839	5.970	6.086
24	3.955	4.546	4.907	5.168	5.373	5.542	5.685	5.809	5.919
30	3.889	4.455	4.799	5.048	5.242	5.401	5.536	5.653	5.756
40	3.825	4.367	4.695	4.931	5.114	5.265	5.392	5.502	5.599
60	3.762	4.282	4.594	4.818	4.991	5.133	5.253	5.356	5.447
120	3.702	4.200	4.497	4.709	4.872	5.005	5.118	5.214	5.299
∞	3.643	4.120	4.403	4.603	4.757	4.882	4.987	5.078	5.157

TABLE B.5 (cont.): Critical Values of the q Distribution, for the Tukey Test

$\alpha = 0.01$

ν	k: 11	12	13	14	15	16	17	18	19
1	253.151	259.979	266.165	271.812	277.003	281.803	286.263	290.426	294.328
2	32.589	33.398	34.134	34.806	35.426	36.000	36.534	37.034	37.502
3	17.130	17.526	17.887	18.217	18.522	18.805	19.068	19.315	19.546
4	12.567	12.840	13.090	13.318	13.530	13.726	13.909	14.081	14.242
5	10.479	10.696	10.894	11.076	11.244	11.400	11.545	11.682	11.811
6	9.300	9.485	9.653	9.808	9.951	10.084	10.208	10.325	10.434
7	8.548	8.711	8.860	8.997	9.124	9.242	9.353	9.456	9.553
8	8.027	8.176	8.311	8.436	8.552	8.659	8.760	8.854	8.943
9	7.646	7.784	7.910	8.025	8.132	8.232	8.325	8.412	8.495
10	7.356	7.485	7.603	7.712	7.812	7.906	7.993	8.075	8.153
11	7.127	7.250	7.362	7.464	7.560	7.648	7.731	7.809	7.883
12	6.943	7.060	7.166	7.265	7.356	7.441	7.520	7.594	7.664
13	6.791	6.903	7.006	7.100	7.188	7.269	7.345	7.417	7.484
14	6.663	6.772	6.871	6.962	7.047	7.125	7.199	7.268	7.333
15	6.555	6.660	6.756	6.845	6.927	7.003	7.074	7.141	7.204
16	6.461	6.564	6.658	6.744	6.823	6.897	6.967	7.032	7.093
17	6.380	6.480	6.572	6.656	6.733	6.806	6.873	6.937	6.997
18	6.309	6.407	6.496	6.579	6.655	6.725	6.791	6.854	6.912
19	6.246	6.342	6.430	6.510	6.585	6.654	6.719	6.780	6.837
20	6.190	6.285	6.370	6.449	6.523	6.591	6.654	6.714	6.770
24	6.017	6.105	6.186	6.261	6.330	6.394	6.453	6.510	6.562
30	5.848	5.932	6.008	6.078	6.142	6.202	6.258	6.311	6.361
40	5.685	5.764	5.835	5.900	5.961	6.017	6.069	6.118	6.165
60	5.528	5.601	5.667	5.728	5.784	5.837	5.886	5.931	5.974
120	5.375	5.443	5.505	5.561	5.614	5.662	5.708	5.750	5.790
∞	5.227	5.290	5.348	5.400	5.448	5.493	5.535	5.574	5.611

TABLE B.5 (cont.): Critical Values of the q Distribution, for the Tukey Test

$\alpha = 0.01$

ν	k: 20	22	24	26	28	30	32	34	36
1	297.997	304.734	310.795	316.298	321.332	325.968	330.262	334.258	337.994
2	37.943	38.755	39.486	40.151	40.760	41.322	41.843	42.328	42.782
3	19.765	20.167	20.530	20.860	21.163	21.443	21.703	21.945	22.171
4	14.394	14.674	14.928	15.158	15.370	15.566	15.748	15.918	16.077
5	11.932	12.155	12.358	12.542	12.712	12.869	13.015	13.151	13.278
6	10.538	10.729	10.902	11.060	11.205	11.339	11.464	11.581	11.690
7	9.645	9.815	9.969	10.110	10.239	10.359	10.470	10.574	10.671
8	9.027	9.181	9.322	9.450	9.568	9.677	9.779	9.874	9.963
9	8.573	8.716	8.847	8.966	9.075	9.177	9.271	9.359	9.442
10	8.226	8.361	8.483	8.595	8.698	8.794	8.882	8.965	9.043
11	7.952	8.080	8.196	8.302	8.400	8.491	8.575	8.654	8.728
12	7.730	7.853	7.964	8.065	8.159	8.246	8.326	8.402	8.473
13	7.548	7.665	7.772	7.870	7.960	8.043	8.121	8.193	8.261
14	7.394	7.508	7.611	7.705	7.792	7.873	7.948	8.018	8.083
15	7.264	7.374	7.474	7.565	7.649	7.727	7.800	7.868	7.932
16	7.151	7.258	7.356	7.444	7.526	7.602	7.673	7.739	7.801
17	7.053	7.158	7.253	7.339	7.419	7.493	7.562	7.627	7.687
18	6.967	7.069	7.162	7.247	7.325	7.397	7.465	7.528	7.587
19	6.891	6.991	7.082	7.165	7.242	7.312	7.378	7.440	7.498
20	6.823	6.921	7.011	7.092	7.167	7.237	7.301	7.362	7.419
24	6.612	6.705	6.788	6.865	6.935	7.001	7.062	7.119	7.172
30	6.407	6.494	6.572	6.644	6.710	6.771	6.828	6.881	6.931
40	6.208	6.289	6.362	6.429	6.490	6.547	6.600	6.650	6.696
60	6.015	6.090	6.158	6.219	6.276	6.329	6.378	6.424	6.467
120	5.827	5.896	5.959	6.016	6.068	6.117	6.162	6.204	6.243
∞	5.645	5.709	5.766	5.818	5.866	5.911	5.952	5.990	6.026

TABLE B.5 (cont.): Critical Values of the q Distribution, for the Tukey Test

$\alpha = 0.01$

ν	k: 38	40	50	60	70	80	90	100
1	341.500	344.800	358.890	370.093	379.361	387.247	394.096	400.143
2	43.208	43.610	45.328	46.697	47.832	48.798	49.639	50.381
3	22.384	22.585	23.445	24.132	24.702	25.188	25.612	25.986
4	16.226	16.367	16.972	17.456	17.858	18.201	18.501	18.765
5	13.398	13.511	13.997	14.387	14.711	14.988	15.229	15.443
6	11.793	11.890	12.308	12.643	12.922	13.160	13.369	13.553
7	10.763	10.850	11.223	11.522	11.772	11.985	12.172	12.337
8	10.047	10.126	10.467	10.742	10.970	11.166	11.337	11.489
9	9.520	9.594	9.912	10.167	10.380	10.563	10.722	10.864
10	9.117	9.186	9.485	9.726	9.927	10.099	10.250	10.383
11	8.798	8.864	9.148	9.377	9.568	9.732	9.875	10.002
12	8.539	8.602	8.874	9.093	9.276	9.433	9.571	9.693
13	8.325	8.386	8.648	8.859	9.035	9.186	9.318	9.436
14	8.146	8.204	8.457	8.661	8.831	8.978	9.106	9.219
15	7.992	8.049	8.294	8.492	8.658	8.800	8.924	9.034
16	7.860	7.915	8.154	8.346	8.507	8.646	8.767	8.874
17	7.744	7.798	8.031	8.219	8.376	8.511	8.629	8.734
18	7.643	7.696	7.923	8.107	8.261	8.393	8.508	8.611
19	7.553	7.605	7.828	8.008	8.158	8.288	8.401	8.501
20	7.473	7.523	7.742	7.919	8.067	8.194	8.305	8.404
24	7.222	7.270	7.476	7.641	7.780	7.900	8.004	8.097
30	6.978	7.023	7.215	7.370	7.500	7.611	7.709	7.796
40	6.740	6.781	6.960	7.104	7.224	7.328	7.419	7.499
60	6.507	6.546	6.710	6.843	6.954	7.049	7.133	7.207
120	6.280	6.316	6.466	6.588	6.689	6.776	6.851	6.919
∞	6.060	6.092	6.228	6.338	6.429	6.507	6.575	6.636

TABLE B.5 (cont.): Critical Values of the q Distribution, for the Tukey Test

$\alpha = 0.005$

ν	k: 2	3	4	5	6	7	8	9	10
1	180.060	270.092	328.526	371.161	404.430	431.549	454.344	473.944	491.095
2	19.925	26.965	31.595	35.023	37.727	39.951	41.832	43.458	44.887
3	10.541	13.499	15.450	16.904	18.059	19.014	19.825	20.529	21.149
4	7.916	9.813	11.061	11.992	12.735	13.350	13.875	14.331	14.735
5	6.751	8.196	9.140	9.846	10.410	10.877	11.277	11.625	11.932
6	6.105	7.306	8.087	8.670	9.135	9.522	9.852	10.140	10.395
7	5.698	6.750	7.429	7.935	8.339	8.674	8.961	9.211	9.433
8	5.420	6.370	6.981	7.435	7.796	8.097	8.354	8.578	8.777
9	5.218	6.096	6.657	7.073	7.405	7.680	7.915	8.120	8.302
10	5.065	5.888	6.412	6.800	7.109	7.365	7.584	7.775	7.944
11	4.945	5.726	6.221	6.587	6.878	7.119	7.325	7.504	7.664
12	4.849	5.596	6.068	6.416	6.693	6.922	7.117	7.288	7.439
13	4.769	5.489	5.943	6.276	6.541	6.760	6.947	7.110	7.254
14	4.703	5.401	5.838	6.160	6.414	6.625	6.805	6.962	7.101
15	4.647	5.325	5.750	6.061	6.307	6.511	6.685	6.836	6.970
16	4.599	5.261	5.674	5.976	6.216	6.413	6.582	6.729	6.859
17	4.557	5.205	5.608	5.903	6.136	6.329	6.493	6.636	6.762
18	4.521	5.156	5.550	5.839	6.067	6.255	6.415	6.554	6.677
19	4.488	5.112	5.500	5.782	6.005	6.189	6.346	6.482	6.603
20	4.460	5.074	5.455	5.732	5.951	6.131	6.285	6.418	6.536
24	4.371	4.955	5.315	5.577	5.783	5.952	6.096	6.221	6.331
30	4.285	4.841	5.181	5.428	5.621	5.779	5.914	6.031	6.134
40	4.202	4.731	5.052	5.284	5.465	5.614	5.739	5.848	5.944
60	4.122	4.625	4.928	5.146	5.316	5.454	5.571	5.673	5.762
120	4.044	4.523	4.809	5.013	5.172	5.301	5.410	5.504	5.586
∞	3.970	4.424	4.694	4.886	5.033	5.154	5.255	5.341	5.418

TABLE B.5 (cont.): Critical Values of the q Distribution, for the Tukey Test

$\alpha = 0.005$

ν	k: 11	12	13	14	15	16	17	18	19
1	506.313	519.970	532.341	543.637	554.019	563.619	572.539	580.866	588.669
2	46.160	47.305	48.346	49.298	50.175	50.988	51.744	52.451	53.114
3	21.703	22.203	22.658	23.076	23.460	23.817	24.150	24.462	24.754
4	15.096	15.422	15.719	15.992	16.244	16.478	16.696	16.901	17.093
5	12.208	12.458	12.686	12.895	13.088	13.268	13.436	13.594	13.742
6	10.624	10.831	11.020	11.194	11.355	11.505	11.644	11.776	11.899
7	9.632	9.812	9.976	10.128	10.268	10.399	10.521	10.635	10.743
8	8.955	9.117	9.265	9.401	9.527	9.644	9.754	9.856	9.953
9	8.466	8.614	8.749	8.874	8.989	9.097	9.197	9.292	9.381
10	8.096	8.233	8.359	8.475	8.583	8.683	8.777	8.864	8.947
11	7.807	7.936	8.055	8.164	8.265	8.359	8.447	8.530	8.608
12	7.574	7.697	7.810	7.913	8.009	8.099	8.182	8.261	8.335
13	7.384	7.502	7.609	7.708	7.800	7.885	7.965	8.040	8.111
14	7.225	7.338	7.442	7.537	7.625	7.707	7.784	7.856	7.924
15	7.091	7.200	7.300	7.391	7.476	7.556	7.630	7.699	7.765
16	6.975	7.081	7.178	7.267	7.349	7.426	7.498	7.565	7.629
17	6.876	6.978	7.072	7.159	7.239	7.313	7.383	7.449	7.510
18	6.788	6.888	6.980	7.064	7.142	7.215	7.283	7.347	7.407
19	6.711	6.809	6.898	6.981	7.057	7.128	7.194	7.257	7.316
20	6.642	6.738	6.826	6.906	6.981	7.051	7.116	7.177	7.234
24	6.430	6.520	6.602	6.677	6.747	6.812	6.872	6.929	6.983
30	6.226	6.310	6.386	6.456	6.521	6.581	6.638	6.691	6.740
40	6.030	6.108	6.178	6.243	6.303	6.359	6.411	6.460	6.507
60	5.841	5.913	5.979	6.039	6.094	6.146	6.194	6.239	6.281
120	5.660	5.726	5.786	5.842	5.893	5.940	5.984	6.025	6.064
∞	5.485	5.546	5.602	5.652	5.699	5.742	5.783	5.820	5.856

TABLE B.5 (cont.): Critical Values of the q Distribution, for the Tukey Test

$\alpha = 0.005$

ν	k: 20	22	24	26	28	30	32	34	36
1	596.007	609.481	621.603	632.609	642.678	651.950	660.538	668.531	676.002
2	53.738	54.887	55.922	56.863	57.725	58.520	59.258	59.945	60.587
3	25.030	25.538	25.996	26.413	26.796	27.150	27.478	27.784	28.070
4	17.275	17.609	17.912	18.187	18.441	18.674	18.892	19.094	19.284
5	13.882	14.140	14.373	14.586	14.782	14.963	15.131	15.288	15.435
6	12.016	12.231	12.426	12.604	12.768	12.919	13.060	13.192	13.315
7	10.845	11.033	11.204	11.359	11.503	11.635	11.759	11.874	11.982
8	10.045	10.214	10.368	10.508	10.637	10.757	10.868	10.972	11.070
9	9.465	9.620	9.761	9.890	10.009	10.119	10.221	10.317	10.407
10	9.025	9.170	9.301	9.422	9.532	9.635	9.730	9.819	9.903
11	8.681	8.818	8.941	9.054	9.159	9.255	9.345	9.429	9.508
12	8.405	8.534	8.652	8.759	8.858	8.950	9.035	9.115	9.190
13	8.178	8.301	8.414	8.516	8.611	8.699	8.781	8.857	8.929
14	7.988	8.107	8.215	8.313	8.404	8.489	8.567	8.641	8.710
15	7.827	7.942	8.046	8.141	8.229	8.310	8.386	8.457	8.524
16	7.689	7.800	7.901	7.993	8.078	8.157	8.231	8.300	8.364
17	7.569	7.677	7.775	7.865	7.948	8.024	8.096	8.163	8.226
18	7.464	7.569	7.665	7.752	7.833	7.908	7.977	8.043	8.104
19	7.371	7.474	7.567	7.653	7.732	7.805	7.873	7.936	7.996
20	7.289	7.389	7.481	7.564	7.641	7.713	7.779	7.842	7.900
24	7.034	7.127	7.213	7.290	7.362	7.429	7.491	7.549	7.603
30	6.787	6.875	6.954	7.026	7.092	7.154	7.211	7.265	7.316
40	6.550	6.631	6.703	6.770	6.832	6.888	6.941	6.991	7.037
60	6.321	6.395	6.462	6.523	6.580	6.632	6.680	6.726	6.768
120	6.101	6.169	6.230	6.286	6.337	6.384	6.428	6.470	6.508
∞	5.889	5.951	6.006	6.057	6.103	6.146	6.186	6.223	6.258

TABLE B.5 (cont.): Critical Values of the q Distribution, for the Tukey Test

$\alpha = 0.005$

ν	k: 38	40	50	60	70	80	90	100
1	683.014	689.615	717.795	740.201	758.738	774.509	788.209	800.303
2	61.191	61.759	64.191	66.129	67.735	69.104	70.294	71.345
3	28.339	28.593	29.680	30.548	31.269	31.883	32.419	32.892
4	19.463	19.631	20.354	20.932	21.413	21.824	22.181	22.498
5	15.574	15.705	16.266	16.716	17.091	17.411	17.690	17.938
6	13.431	13.541	14.013	14.391	14.707	14.976	15.212	15.421
7	12.084	12.181	12.595	12.927	13.205	13.443	13.650	13.834
8	11.162	11.249	11.623	11.924	12.175	12.390	12.578	12.745
9	10.491	10.571	10.916	11.193	11.425	11.624	11.797	11.951
10	9.982	10.057	10.379	10.638	10.855	11.041	11.203	11.347
11	9.583	9.653	9.957	10.202	10.407	10.582	10.736	10.872
12	9.261	9.328	9.617	9.850	10.045	10.212	10.358	10.488
13	8.997	9.061	9.337	9.560	9.747	9.907	10.047	10.172
14	8.775	8.837	9.103	9.317	9.497	9.651	9.786	9.906
15	8.587	8.647	8.903	9.111	9.285	9.434	9.564	9.680
16	8.425	8.483	8.732	8.933	9.102	9.246	9.373	9.486
17	8.285	8.341	8.583	8.779	8.942	9.083	9.206	9.316
18	8.162	8.216	8.452	8.643	8.803	8.940	9.060	9.167
19	8.053	8.106	8.337	8.523	8.679	8.813	8.930	9.035
20	7.956	8.008	8.233	8.416	8.569	8.700	8.815	8.917
24	7.655	7.703	7.914	8.083	8.226	8.348	8.455	8.551
30	7.363	7.409	7.603	7.760	7.892	8.005	8.105	8.193
40	7.081	7.123	7.302	7.447	7.568	7.672	7.763	7.844
60	6.808	6.846	7.010	7.142	7.252	7.347	7.430	7.504
120	6.545	6.579	6.727	6.846	6.946	7.031	7.106	7.172
∞	6.291	6.322	6.454	6.561	6.649	6.725	6.792	6.850

TABLE B.5 (cont.): Critical Values of the q Distribution, for the Tukey Test

$\alpha = 0.001$

ν	k: 2	3	4	5	6	7	8	9	10
1	900.316	1350.474	1642.645	1855.822	2022.168	2157.764	2271.737	2369.737	2455.493
2	44.688	60.418	70.769	78.434	84.482	89.455	93.663	97.301	100.498
3	18.277	23.313	26.643	29.128	31.102	32.736	34.124	35.329	36.392
4	12.177	14.983	16.837	18.227	19.336	20.256	21.041	21.724	22.328
5	9.714	11.672	12.962	13.930	14.704	15.348	15.898	16.378	16.804
6	8.427	9.960	10.965	11.719	12.323	12.825	13.256	13.631	13.965
7	7.648	8.930	9.768	10.395	10.897	11.316	11.675	11.988	12.266
8	7.129	8.250	8.977	9.522	9.958	10.321	10.632	10.904	11.145
9	6.761	7.768	8.419	8.906	9.295	9.619	9.896	10.139	10.355
10	6.487	7.411	8.006	8.449	8.804	9.099	9.352	9.573	9.769
11	6.275	7.135	7.687	8.098	8.426	8.699	8.933	9.137	9.319
12	6.106	6.917	7.435	7.820	8.127	8.382	8.601	8.792	8.962
13	5.969	6.740	7.231	7.595	7.885	8.126	8.332	8.513	8.673
14	5.855	6.593	7.062	7.409	7.685	7.914	8.110	8.282	8.434
15	5.760	6.470	6.920	7.252	7.517	7.736	7.924	8.088	8.234
16	5.678	6.365	6.799	7.119	7.374	7.585	7.765	7.923	8.063
17	5.608	6.274	6.695	7.004	7.250	7.454	7.629	7.781	7.916
18	5.546	6.195	6.604	6.905	7.143	7.341	7.510	7.657	7.788
19	5.492	6.126	6.524	6.817	7.049	7.241	7.405	7.549	7.676
20	5.444	6.065	6.454	6.740	6.966	7.153	7.313	7.453	7.576
24	5.297	5.877	6.238	6.502	6.711	6.884	7.031	7.159	7.272
30	5.156	5.698	6.033	6.277	6.469	6.628	6.763	6.880	6.984
40	5.022	5.527	5.838	6.063	6.240	6.385	6.509	6.616	6.710
60	4.893	5.365	5.653	5.860	6.022	6.155	6.268	6.365	6.451
120	4.771	5.211	5.476	5.667	5.815	5.937	6.039	6.128	6.206
∞	4.654	5.063	5.309	5.484	5.619	5.730	5.823	5.903	5.973

TABLE B.5 (cont.): Critical Values of the q Distribution, for the Tukey Test

$\alpha = 0.001$

ν	k: 11	12	13	14	15	16	17	18	19
1	2531.585	2599.870	2661.726	2718.203	2770.116	2818.114	2862.716	2904.350	2943.366
2	103.346	105.909	108.237	110.367	112.329	114.147	115.839	117.420	118.904
3	37.341	38.198	38.978	39.693	40.352	40.964	41.535	42.069	42.570
4	22.869	23.358	23.804	24.213	24.592	24.943	25.271	25.578	25.867
5	17.185	17.530	17.845	18.135	18.403	18.652	18.885	19.103	19.308
6	14.264	14.535	14.783	15.011	15.222	15.418	15.602	15.774	15.936
7	12.516	12.742	12.950	13.140	13.317	13.482	13.636	13.780	13.916
8	11.362	11.559	11.740	11.906	12.060	12.203	12.337	12.463	12.582
9	10.549	10.725	10.886	11.034	11.172	11.300	11.420	11.533	11.640
10	9.946	10.106	10.253	10.388	10.514	10.631	10.740	10.843	10.940
11	9.482	9.630	9.766	9.891	10.007	10.115	10.217	10.312	10.402
12	9.115	9.253	9.380	9.497	9.606	9.707	9.802	9.891	9.975
13	8.817	8.948	9.068	9.178	9.280	9.376	9.465	9.549	9.629
14	8.571	8.695	8.809	8.914	9.011	9.102	9.187	9.267	9.342
15	8.364	8.483	8.592	8.692	8.785	8.872	8.953	9.030	9.102
16	8.189	8.303	8.407	8.504	8.593	8.676	8.754	8.828	8.897
17	8.037	8.147	8.248	8.341	8.427	8.507	8.583	8.653	8.720
18	7.905	8.012	8.109	8.199	8.283	8.361	8.433	8.502	8.566
19	7.790	7.893	7.988	8.075	8.156	8.232	8.302	8.369	8.431
20	7.687	7.788	7.880	7.965	8.044	8.118	8.186	8.251	8.312
24	7.374	7.467	7.551	7.629	7.701	7.768	7.831	7.890	7.946
30	7.077	7.161	7.239	7.310	7.375	7.437	7.494	7.548	7.598
40	6.795	6.872	6.942	7.007	7.066	7.122	7.174	7.223	7.268
60	6.528	6.598	6.661	6.720	6.773	6.824	6.870	6.914	6.956
120	6.275	6.338	6.395	6.448	6.496	6.541	6.583	6.623	6.660
∞	6.036	6.092	6.144	6.191	6.234	6.274	6.312	6.347	6.380

TABLE B.5 (cont.): Critical Values of the q Distribution, for the Tukey Test

$\alpha = 0.001$

ν	k: 20	22	24	26	28	30	32	34	36
1	2980.058	3047.427	3108.037	3163.065	3213.410	3259.774	3302.713	3342.677	3380.035
2	120.302	122.871	125.187	127.294	129.223	131.003	132.652	134.189	135.627
3	43.043	43.913	44.700	45.415	46.072	46.678	47.241	47.766	48.257
4	26.140	26.642	27.097	27.511	27.892	28.243	28.570	28.875	29.160
5	19.502	19.860	20.184	20.480	20.752	21.003	21.237	21.456	21.660
6	16.090	16.373	16.629	16.864	17.079	17.279	17.465	17.638	17.801
7	14.045	14.283	14.499	14.696	14.877	15.045	15.202	15.348	15.486
8	12.694	12.902	13.090	13.263	13.422	13.569	13.706	13.834	13.954
9	11.740	11.926	12.095	12.250	12.392	12.524	12.647	12.762	12.870
10	11.032	11.202	11.356	11.497	11.628	11.748	11.861	11.966	12.065
11	10.487	10.644	10.787	10.918	11.039	11.150	11.255	11.352	11.444
12	10.055	10.202	10.336	10.458	10.571	10.676	10.774	10.865	10.951
13	9.704	9.843	9.969	10.085	10.192	10.291	10.383	10.469	10.551
14	9.414	9.546	9.666	9.776	9.877	9.972	10.059	10.142	10.219
15	9.170	9.296	9.411	9.516	9.613	9.703	9.787	9.866	9.940
16	8.962	9.084	9.194	9.295	9.388	9.475	9.555	9.631	9.702
17	8.783	8.900	9.007	9.104	9.194	9.277	9.355	9.428	9.497
18	8.627	8.741	8.844	8.938	9.025	9.106	9.181	9.251	9.318
19	8.491	8.600	8.700	8.792	8.876	8.955	9.028	9.096	9.161
20	8.370	8.476	8.574	8.663	8.745	8.821	8.892	8.959	9.021
24	7.999	8.096	8.185	8.266	8.342	8.411	8.476	8.537	8.594
30	7.646	7.735	7.816	7.890	7.958	8.021	8.080	8.136	8.187
40	7.312	7.392	7.465	7.532	7.594	7.651	7.704	7.754	7.801
60	6.995	7.067	7.133	7.193	7.248	7.299	7.347	7.391	7.433
120	6.695	6.759	6.818	6.871	6.920	6.966	7.008	7.048	7.085
∞	6.411	6.469	6.520	6.568	6.611	6.651	6.689	6.723	6.756

TABLE B.5 (cont.): Critical Values of the q Distribution, for the Tukey Test

$\alpha = 0.001$

ν	k: 38	40	50	60	70	80	90	100
1	3415.091	3448.101	3589.001	3701.032	3793.715	3872.571	3941.071	4001.539
2	136.978	138.250	143.692	148.029	151.624	154.686	157.349	159.702
3	48.719	49.154	51.019	52.509	53.746	54.801	55.719	56.531
4	29.429	29.683	30.770	31.641	32.364	32.983	33.521	33.998
5	21.853	22.035	22.816	23.443	23.964	24.410	24.800	25.144
6	17.954	18.099	18.721	19.221	19.638	19.995	20.306	20.582
7	15.615	15.737	16.263	16.687	17.040	17.343	17.607	17.841
8	14.067	14.175	14.636	15.008	15.319	15.585	15.818	16.025
9	12.972	13.069	13.484	13.819	14.099	14.339	14.550	14.736
10	12.158	12.247	12.627	12.934	13.191	13.412	13.605	13.777
11	11.531	11.613	11.966	12.251	12.490	12.696	12.875	13.035
12	11.032	11.109	11.441	11.709	11.933	12.126	12.295	12.445
13	10.627	10.700	11.013	11.267	11.479	11.662	11.822	11.964
14	10.292	10.361	10.659	10.901	11.103	11.277	11.430	11.565
15	10.010	10.076	10.361	10.592	10.786	10.953	11.099	11.229
16	9.769	9.832	10.107	10.329	10.516	10.676	10.817	10.942
17	9.561	9.623	9.887	10.102	10.282	10.437	10.573	10.693
18	9.380	9.440	9.696	9.904	10.078	10.228	10.360	10.477
19	9.221	9.279	9.528	9.729	9.898	10.044	10.172	10.286
20	9.080	9.136	9.379	9.575	9.739	9.881	10.006	10.116
24	8.648	8.699	8.921	9.100	9.250	9.380	9.494	9.595
30	8.236	8.283	8.484	8.646	8.783	8.901	9.004	9.096
40	7.845	7.887	8.067	8.214	8.336	8.442	8.535	8.618
60	7.473	7.510	7.671	7.802	7.911	8.005	8.088	8.161
120	7.120	7.153	7.295	7.410	7.507	7.589	7.662	7.726
∞	6.787	6.816	6.941	7.041	7.124	7.196	7.259	7.314