

## 15.6: Appendix F- The q-Tables

The tables show the Studentized Range  $q$ -values needed when hand-calculating HSD post-hoc comparisons.

Degrees of Freedom Within ( $df_w$ )	Number of Groups ( $k$ )								
		2	3	4	5	6	7	8	9
1		17.969	26.976	32.819	37.082	40.408	43.119	45.397	47.357
2		6.085	8.331	9.798	10.881	11.734	12.435	13.027	13.538
3		4.501	5.910	6.825	7.502	8.037	8.478	8.852	9.177
4		3.927	5.040	5.757	6.287	6.707	7.053	7.347	7.602
5		3.635	4.602	5.219	5.673	6.033	6.330	6.582	6.801
6		3.461	4.339	4.896	5.305	5.629	5.895	6.122	6.319
7		3.344	4.165	4.681	5.060	5.359	5.606	5.815	5.998
8		3.261	4.041	4.529	4.886	5.167	5.399	5.596	5.767
9		3.199	3.949	4.415	4.755	5.024	5.244	5.432	5.595
10		3.151	3.877	4.327	4.654	4.912	5.124	5.304	5.461
11		3.113	3.820	4.256	4.574	4.823	5.028	5.202	5.353
12		3.081	3.773	4.199	4.508	4.748	4.947	5.116	5.263
13		3.055	3.734	4.151	4.453	4.690	4.884	5.049	5.192
14		3.033	3.701	4.111	4.407	4.639	4.829	4.990	5.130
15		3.014	3.673	4.076	4.367	4.595	4.782	4.940	5.077
16		2.998	3.649	4.046	4.333	4.557	4.741	4.896	5.031
17		2.984	3.628	4.020	4.303	4.524	4.705	4.858	4.991
18		2.971	3.609	3.997	4.276	4.494	4.673	4.824	4.955
19		2.960	3.593	3.977	4.253	4.469	4.645	4.794	4.924
20		2.950	3.578	3.958	4.232	4.445	4.620	4.768	4.895
21		2.941	3.565	3.942	4.213	4.424	4.597	4.744	4.870
22		2.933	3.553	3.927	4.196	4.406	4.577	4.722	4.847
23		2.926	3.542	3.914	4.181	4.388	4.558	4.702	4.826
24		2.919	3.532	3.901	4.166	4.373	4.541	4.684	4.807
25		2.913	3.523	3.890	4.153	4.358	4.526	4.667	4.789
26		2.907	3.514	3.880	4.142	4.345	4.512	4.652	4.773
27		2.902	3.506	3.870	4.131	4.333	4.498	4.638	4.758
28		2.897	3.499	3.861	4.120	4.322	4.486	4.625	4.745
29		2.892	3.493	3.853	4.111	4.311	4.475	4.613	4.732
30		2.888	3.487	3.845	4.102	4.302	4.464	4.601	4.720
31		2.884	3.481	3.838	4.094	4.292	4.454	4.591	4.709

<b>32</b>	2.881	3.475	3.832	4.086	4.284	4.445	4.581	4.698
<b>33</b>	2.877	3.470	3.825	4.079	4.276	4.437	4.572	4.689
<b>34</b>	2.874	3.465	3.820	4.072	4.268	4.428	4.563	4.680
<b>35</b>	2.871	3.461	3.814	4.066	4.261	4.421	4.555	4.671
<b>36</b>	2.868	3.457	3.809	4.060	4.255	4.414	4.547	4.663
<b>37</b>	2.866	3.453	3.804	4.054	4.249	4.407	4.540	4.655
<b>38</b>	2.863	3.449	3.799	4.049	4.243	4.400	4.533	4.648
<b>39</b>	2.861	3.446	3.795	4.044	4.237	4.394	4.527	4.641
<b>40</b>	2.858	3.442	3.791	4.039	4.232	4.389	4.521	4.635
<b>41</b>	2.856	3.439	3.787	4.035	4.227	4.383	4.515	4.628
<b>42</b>	2.854	3.436	3.783	4.030	4.222	4.378	4.509	4.622
<b>43</b>	2.852	3.433	3.779	4.026	4.217	4.373	4.504	4.617
<b>44</b>	2.850	3.430	3.776	4.022	4.213	4.368	4.499	4.611
<b>45</b>	2.848	3.428	3.773	4.018	4.209	4.364	4.494	4.606
<b>46</b>	2.847	3.425	3.770	4.015	4.205	4.359	4.489	4.601
<b>47</b>	2.845	3.423	3.767	4.011	4.201	4.355	4.485	4.597
<b>48</b>	2.844	3.420	3.764	4.008	4.197	4.351	4.481	4.592
<b>49</b>	2.842	3.418	3.761	4.005	4.194	4.347	4.477	4.588
<b>50</b>	2.841	3.416	3.758	4.002	4.190	4.344	4.473	4.584
<b>51</b>	2.839	3.414	3.756	3.999	4.187	4.340	4.469	4.580

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