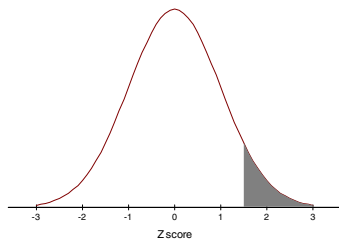


APPENDIX: Statistical Tables

Standard Normal Cumulative Probability (Right-Hand Tail)

z-score →	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.0	0.5000	0.4960	0.4920	0.4880	0.4840	0.4801	0.4761	0.4721	0.4681	0.4641
0.1	0.4602	0.4562	0.4522	0.4483	0.4443	0.4404	0.4364	0.4325	0.4286	0.4247
0.2	0.4207	0.4168	0.4129	0.4090	0.4052	0.4013	0.3974	0.3936	0.3897	0.3859
0.3	0.3821	0.3783	0.3745	0.3707	0.3669	0.3632	0.3594	0.3557	0.3520	0.3483
0.4	0.3446	0.3409	0.3372	0.3336	0.3300	0.3264	0.3228	0.3192	0.3156	0.3121
0.5	0.3085	0.3050	0.3015	0.2981	0.2946	0.2912	0.2877	0.2843	0.2810	0.2776
0.6	0.2743	0.2709	0.2676	0.2643	0.2611	0.2578	0.2546	0.2514	0.2483	0.2451
0.7	0.2420	0.2389	0.2358	0.2327	0.2296	0.2266	0.2236	0.2206	0.2177	0.2148
0.8	0.2119	0.2090	0.2061	0.2033	0.2005	0.1977	0.1949	0.1922	0.1894	0.1867
0.9	0.1841	0.1814	0.1788	0.1762	0.1736	0.1711	0.1685	0.1660	0.1635	0.1611
1.0	0.1587	0.1562	0.1539	0.1515	0.1492	0.1469	0.1446	0.1423	0.1401	0.1379
1.1	0.1357	0.1335	0.1314	0.1292	0.1271	0.1251	0.1230	0.1210	0.1190	0.1170
1.2	0.1151	0.1131	0.1112	0.1093	0.1075	0.1056	0.1038	0.1020	0.1003	0.0985
1.3	0.0968	0.0951	0.0934	0.0918	0.0901	0.0885	0.0869	0.0853	0.0838	0.0823
1.4	0.0808	0.0793	0.0778	0.0764	0.0749	0.0735	0.0721	0.0708	0.0694	0.0681
1.5	0.0668	0.0655	0.0643	0.0630	0.0618	0.0606	0.0594	0.0582	0.0571	0.0559
1.6	0.0548	0.0537	0.0526	0.0516	0.0505	0.0495	0.0485	0.0475	0.0465	0.0455
1.7	0.0446	0.0436	0.0427	0.0418	0.0409	0.0401	0.0392	0.0384	0.0375	0.0367
1.8	0.0359	0.0351	0.0344	0.0336	0.0329	0.0322	0.0314	0.0307	0.0301	0.0294
1.9	0.0287	0.0281	0.0274	0.0268	0.0262	0.0256	0.0250	0.0244	0.0239	0.0233
2.0	0.0228	0.0222	0.0217	0.0212	0.0207	0.0202	0.0197	0.0192	0.0188	0.0183
2.1	0.0179	0.0174	0.0170	0.0166	0.0162	0.0158	0.0154	0.0150	0.0146	0.0143
2.2	0.0139	0.0136	0.0132	0.0129	0.0125	0.0122	0.0119	0.0116	0.0113	0.0110
2.3	0.0107	0.0104	0.0102	0.0099	0.0096	0.0094	0.0091	0.0089	0.0087	0.0084
2.4	0.0082	0.0080	0.0078	0.0075	0.0073	0.0071	0.0069	0.0068	0.0066	0.0064
2.5	0.00621	0.00604	0.00587	0.00570	0.00554	0.00539	0.00523	0.00508	0.00494	0.00480
2.6	0.00466	0.00453	0.00440	0.00427	0.00415	0.00402	0.00391	0.00379	0.00368	0.00357
2.7	0.00347	0.00336	0.00326	0.00317	0.00307	0.00298	0.00289	0.00280	0.00272	0.00264
2.8	0.00256	0.00248	0.00240	0.00233	0.00226	0.00219	0.00212	0.00205	0.00199	0.00193
2.9	0.00187	0.00181	0.00175	0.00169	0.00164	0.00159	0.00154	0.00149	0.00144	0.00139
3.0	0.00135	0.00131	0.00126	0.00122	0.00118	0.00114	0.00111	0.00107	0.00104	0.00100
3.5	2.33e-4	2.24e-4	2.16e-4	2.08e-4	2.00e-4	1.93e-4	1.85e-4	1.79e-4	1.72e-4	1.65e-4
4.0	3.17e-5	3.04e-5	2.91e-5	2.79e-5	2.67e-5	2.56e-5	2.45e-5	2.35e-5	2.25e-5	2.16e-5
4.5	3.40e-6	3.24e-6	3.09e-6	2.95e-6	2.82e-6	2.68e-6	2.56e-6	2.44e-6	2.33e-6	2.22e-6
5.0	2.87e-7	2.73e-7	2.59e-7	2.46e-7	2.33e-7	2.21e-7	2.10e-7	1.99e-7	1.89e-7	1.79e-7

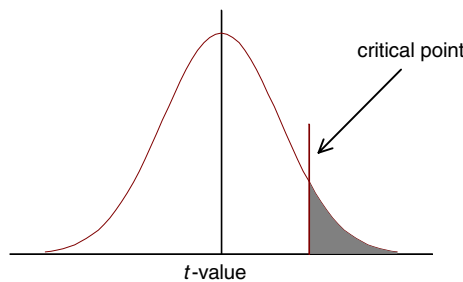


Values in the table indicate the shaded area in figure, which gives $P(z > z_0)$, where z_0 is the "z-score."

Student's t Critical Points

	<i>right-tail probability</i>								
	0.2500	0.1000	0.0500	0.0250	0.0100	0.0050	0.0025	0.0010	0.0005
1	1.0000	3.0777	6.3137	12.7062	31.8210	63.6559	127.3211	318.2888	636.5776
2	0.8165	1.8856	2.9200	4.3027	6.9645	9.9250	14.0892	22.3285	31.5998
3	0.7649	1.6377	2.3534	3.1824	4.5407	5.8408	7.4532	10.2143	12.9244
4	0.7407	1.5332	2.1318	2.7765	3.7469	4.6041	5.5975	7.1729	8.6101
5	0.7267	1.4759	2.0150	2.5706	3.3649	4.0321	4.7733	5.8935	6.8685
6	0.7176	1.4398	1.9432	2.4469	3.1427	3.7074	4.3168	5.2075	5.9587
7	0.7111	1.4149	1.8946	2.3646	2.9979	3.4995	4.0294	4.7853	5.4081
8	0.7064	1.3968	1.8595	2.3060	2.8965	3.3554	3.8325	4.5008	5.0414
9	0.7027	1.3830	1.8331	2.2622	2.8214	3.2498	3.6896	4.2969	4.7809
10	0.6998	1.3722	1.8125	2.2281	2.7638	3.1693	3.5814	4.1437	4.5868
11	0.6974	1.3634	1.7959	2.2010	2.7181	3.1058	3.4966	4.0248	4.4369
12	0.6955	1.3562	1.7823	2.1788	2.6810	3.0545	3.4284	3.9296	4.3178
13	0.6938	1.3502	1.7709	2.1604	2.6503	3.0123	3.3725	3.8520	4.2209
14	0.6924	1.3450	1.7613	2.1448	2.6245	2.9768	3.3257	3.7874	4.1403
15	0.6912	1.3406	1.7531	2.1315	2.6025	2.9467	3.2860	3.7329	4.0728
16	0.6901	1.3368	1.7459	2.1199	2.5835	2.9208	3.2520	3.6861	4.0149
17	0.6892	1.3334	1.7396	2.1098	2.5669	2.8982	3.2224	3.6458	3.9651
18	0.6884	1.3304	1.7341	2.1009	2.5524	2.8784	3.1966	3.6105	3.9217
19	0.6876	1.3277	1.7291	2.0930	2.5395	2.8609	3.1737	3.5793	3.8833
20	0.6870	1.3253	1.7247	2.0860	2.5280	2.8453	3.1534	3.5518	3.8496
21	0.6864	1.3232	1.7207	2.0796	2.5176	2.8314	3.1352	3.5271	3.8193
22	0.6858	1.3212	1.7171	2.0739	2.5083	2.8188	3.1188	3.5050	3.7922
23	0.6853	1.3195	1.7139	2.0687	2.4999	2.8073	3.1040	3.4850	3.7676
24	0.6848	1.3178	1.7109	2.0639	2.4922	2.7970	3.0905	3.4668	3.7454
25	0.6844	1.3163	1.7081	2.0595	2.4851	2.7874	3.0782	3.4502	3.7251
26	0.6840	1.3150	1.7056	2.0555	2.4786	2.7787	3.0669	3.4350	3.7067
27	0.6837	1.3137	1.7033	2.0518	2.4727	2.7707	3.0565	3.4210	3.6895
28	0.6834	1.3125	1.7011	2.0484	2.4671	2.7633	3.0470	3.4082	3.6739
29	0.6830	1.3114	1.6991	2.0452	2.4620	2.7564	3.0380	3.3963	3.6595
30	0.6828	1.3104	1.6973	2.0423	2.4573	2.7500	3.0298	3.3852	3.6460
35	0.6816	1.3062	1.6896	2.0301	2.4377	2.7238	2.9961	3.3400	3.5911
40	0.6807	1.3031	1.6839	2.0211	2.4233	2.7045	2.9712	3.3069	3.5510
45	0.6800	1.3007	1.6794	2.0141	2.4121	2.6896	2.9521	3.2815	3.5203
50	0.6794	1.2987	1.6759	2.0086	2.4033	2.6778	2.9370	3.2614	3.4960
60	0.6786	1.2958	1.6706	2.0003	2.3901	2.6603	2.9146	3.2317	3.4602
70	0.6780	1.2938	1.6669	1.9944	2.3808	2.6479	2.8987	3.2108	3.4350
80	0.6776	1.2922	1.6641	1.9901	2.3739	2.6387	2.8870	3.1952	3.4164
90	0.6772	1.2910	1.6620	1.9867	2.3685	2.6316	2.8779	3.1832	3.4019
100	0.6770	1.2901	1.6602	1.9840	2.3642	2.6259	2.8707	3.1738	3.3905
∞	0.6745	1.2816	1.6449	1.9600	2.3263	2.5758	2.8071	3.0902	3.2905

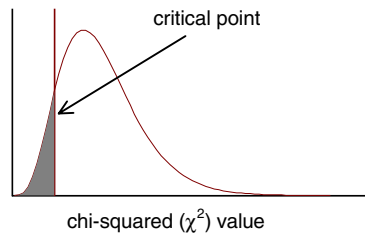
degrees of freedom



Values in the table are the "critical points," the *t*-values that give the desired probability in the right-hand tail.

χ^2 (chi-square) Critical Points

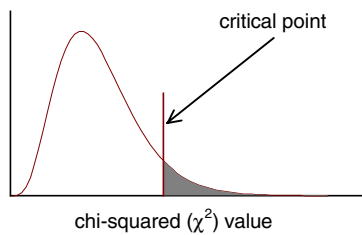
		<i>left-tail probability</i>								
		0.2500	0.1000	0.0500	0.0250	0.0100	0.0050	0.0025	0.0010	0.0005
degrees of freedom	1	0.1015	0.0158	3.93e-3	9.82e-4	1.57e-4	3.93e-5	9.82e-6	1.57e-6	3.93e-7
	2	0.5754	0.2107	0.1026	0.0506	0.0201	0.0100	5.01e-3	2.00e-3	1.00e-3
	3	1.2125	0.5844	0.3518	0.2158	0.1148	0.0717	0.0449	0.0243	0.0153
	4	1.9226	1.0636	0.7107	0.4844	0.2971	0.2070	0.1449	0.0908	0.0639
	5	2.6746	1.6103	1.1455	0.8312	0.5543	0.4118	0.3075	0.2102	0.1581
	6	3.4546	2.2041	1.6354	1.2373	0.8721	0.6757	0.5266	0.3810	0.2994
	7	4.2549	2.8331	2.1673	1.6899	1.2390	0.9893	0.7945	0.5985	0.4849
	8	5.0706	3.4895	2.7326	2.1797	1.6465	1.3444	1.1042	0.8571	0.7104
	9	5.8988	4.1682	3.3251	2.7004	2.0879	1.7349	1.4501	1.1519	0.9718
	10	6.7372	4.8652	3.9403	3.2470	2.5582	2.1558	1.8274	1.4787	1.2651
	11	7.5841	5.5778	4.5748	3.8157	3.0535	2.6032	2.2321	1.8338	1.5870
	12	8.4384	6.3038	5.2260	4.4038	3.5706	3.0738	2.6612	2.2141	1.9345
	13	9.2991	7.0415	5.8919	5.0087	4.1069	3.5650	3.1118	2.6172	2.3049
	14	10.1653	7.7895	6.5706	5.6287	4.6604	4.0747	3.5820	3.0407	2.6966
	15	11.0365	8.5468	7.2609	6.2621	5.2294	4.6009	4.0697	3.4825	3.1073
	16	11.9122	9.3122	7.9616	6.9077	5.8122	5.1422	4.5734	3.9417	3.5357
	17	12.7919	10.0852	8.6718	7.5642	6.4077	5.6973	5.0916	4.4162	3.9800
	18	13.6753	10.8649	9.3904	8.2307	7.0149	6.2648	5.6234	4.9048	4.4391
	19	14.5620	11.6509	10.1170	8.9065	7.6327	6.8439	6.1673	5.4067	4.9125
	20	15.4518	12.4426	10.8508	9.5908	8.2604	7.4338	6.7228	5.9210	5.3978
21	16.3444	13.2396	11.5913	10.2829	8.8972	8.0336	7.2889	6.4467	5.8954	
22	17.2396	14.0415	12.3380	10.9823	9.5425	8.6427	7.8648	6.9829	6.4041	
23	18.1373	14.8480	13.0905	11.6885	10.1957	9.2604	8.4503	7.5291	6.9240	
24	19.0373	15.6587	13.8484	12.4011	10.8563	9.8862	9.0441	8.0847	7.4528	
25	19.9393	16.4734	14.6114	13.1197	11.5240	10.5196	9.6462	8.6494	7.9905	
26	20.8434	17.2919	15.3792	13.8439	12.1982	11.1602	10.2561	9.2222	8.5374	
27	21.7494	18.1139	16.1514	14.5734	12.8785	11.8077	10.8733	9.8029	9.0929	
28	22.6572	18.9392	16.9279	15.3079	13.5647	12.4613	11.4973	10.3907	9.6558	
29	23.5666	19.7677	17.7084	16.0471	14.2564	13.1211	12.1278	10.9861	10.2266	
30	24.4776	20.5992	18.4927	16.7908	14.9535	13.7867	12.7646	11.5876	10.8040	
35	29.0540	24.7966	22.4650	20.5694	18.5089	17.1917	16.0315	14.6881	13.7879	
40	33.6603	29.0505	26.5093	24.4331	22.1642	20.7066	19.4171	17.9166	16.9058	
45	38.2910	33.3504	30.6123	28.3662	25.9012	24.3110	22.8994	21.2509	20.1361	
50	42.9421	37.6886	34.7642	32.3574	29.7067	27.9908	26.4636	24.6736	23.4611	
60	52.2938	46.4589	43.1880	40.4817	37.4848	35.5344	33.7909	31.7381	30.3393	
70	61.6983	55.3289	51.7393	48.7575	45.4417	43.2753	41.3323	39.0358	37.4671	
80	71.1445	64.2778	60.3915	57.1532	53.5400	51.1719	49.0430	46.5197	44.7917	
90	80.6247	73.2911	69.1260	65.6466	61.7540	59.1963	56.8918	54.1559	52.2768	
100	90.1332	82.3581	77.9294	74.2219	70.0650	67.3275	64.8571	61.9182	59.8946	



Values in the table are the "critical points," the χ^2 values that give the desired probability in the left-hand tail.

χ^2 (chi-square) Critical Points

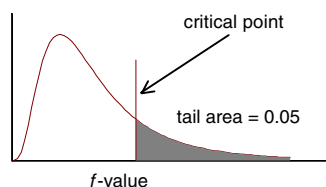
		<i>right-tail probability</i>								
		0.2500	0.1000	0.0500	0.0250	0.0100	0.0050	0.0025	0.0010	0.0005
degrees of freedom	1	1.3233	2.7055	3.8415	5.0239	6.6349	7.8794	9.1404	10.827	12.115
	2	2.7726	4.6052	5.9915	7.3778	9.2104	10.597	11.983	13.815	15.201
	3	4.1083	6.2514	7.8147	9.3484	11.345	12.838	14.320	16.266	17.731
	4	5.3853	7.7794	9.4877	11.143	13.277	14.860	16.424	18.466	19.998
	5	6.6257	9.2363	11.070	12.832	15.086	16.750	18.385	20.515	22.106
	6	7.8408	10.645	12.592	14.449	16.812	18.548	20.249	22.457	24.102
	7	9.0371	12.017	14.067	16.013	18.475	20.278	22.040	24.321	26.018
	8	10.219	13.362	15.507	17.535	20.090	21.955	23.774	26.124	27.867
	9	11.389	14.684	16.919	19.023	21.666	23.589	25.463	27.877	29.667
	10	12.549	15.987	18.307	20.483	23.209	25.188	27.112	29.588	31.419
	11	13.701	17.275	19.675	21.920	24.725	26.757	28.729	31.264	33.138
	12	14.845	18.549	21.026	23.337	26.217	28.300	30.318	32.909	34.821
	13	15.984	19.812	22.362	24.736	27.688	29.819	31.883	34.527	36.477
	14	17.117	21.064	23.685	26.119	29.141	31.319	33.426	36.124	38.109
	15	18.245	22.307	24.996	27.488	30.578	32.801	34.949	37.698	39.717
	16	19.369	23.542	26.296	28.845	32.000	34.267	36.456	39.252	41.308
	17	20.489	24.769	27.587	30.191	33.409	35.718	37.946	40.791	42.881
	18	21.605	25.989	28.869	31.526	34.805	37.156	39.422	42.312	44.434
	19	22.718	27.204	30.144	32.852	36.191	38.582	40.885	43.819	45.974
	20	23.828	28.412	31.410	34.170	37.566	39.997	42.336	45.314	47.498
21	24.935	29.615	32.671	35.479	38.932	41.401	43.775	46.796	49.010	
22	26.039	30.813	33.924	36.781	40.289	42.796	45.204	48.268	50.510	
23	27.141	32.007	35.172	38.076	41.638	44.181	46.623	49.728	51.999	
24	28.241	33.196	36.415	39.364	42.980	45.558	48.034	51.179	53.478	
25	29.339	34.382	37.652	40.646	44.314	46.928	49.435	52.619	54.948	
26	30.435	35.563	38.885	41.923	45.642	48.290	50.829	54.051	56.407	
27	31.528	36.741	40.113	43.195	46.963	49.645	52.215	55.475	57.856	
28	32.620	37.916	41.337	44.461	48.278	50.994	53.594	56.892	59.299	
29	33.711	39.087	42.557	45.722	49.588	52.335	54.966	58.301	60.734	
30	34.800	40.256	43.773	46.979	50.892	53.672	56.332	59.702	62.160	
35	40.223	46.059	49.802	53.203	57.342	60.275	63.076	66.619	69.197	
40	45.616	51.805	55.758	59.342	63.691	66.766	69.699	73.403	76.096	
45	50.985	57.505	61.656	65.410	69.957	73.166	76.223	80.078	82.873	
50	56.334	63.167	67.505	71.420	76.154	79.490	82.664	86.660	89.560	
60	66.981	74.397	79.082	83.298	88.379	91.952	95.344	99.608	102.697	
70	77.577	85.527	90.531	95.023	100.425	104.215	107.808	112.317	115.577	
80	88.130	96.578	101.879	106.629	112.329	116.321	120.102	124.839	128.264	
90	98.650	107.565	113.145	118.136	124.116	128.299	132.255	137.208	140.780	
100	109.141	118.498	124.342	129.561	135.807	140.170	144.292	149.449	153.164	



Values in the table are the "critical points," the χ^2 values that give the desired probability in the right-hand tail.

F distribution Critical Points, Right-tail Probability = 0.05

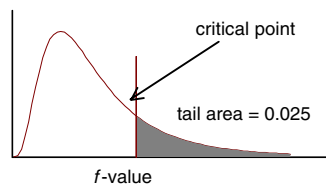
		degrees of freedom in numerator (v_1)																										
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25		
degrees of freedom in denominator (v_2)	1	161	199	216	225	230	234	237	239	241	242	243	244	245	245	246	246	247	247	248	248	248	249	249	249	249	249	
	2	18.5	19.0	19.2	19.2	19.3	19.3	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.5	19.5	19.5	19.5	19.5
	3	10.1	9.55	9.28	9.12	9.01	8.94	8.89	8.85	8.81	8.79	8.76	8.74	8.73	8.71	8.70	8.69	8.68	8.67	8.67	8.66	8.66	8.65	8.65	8.64	8.64	8.63	8.63
	4	7.71	6.94	6.59	6.39	6.26	6.16	6.09	6.04	6.00	5.96	5.94	5.91	5.89	5.87	5.86	5.84	5.83	5.82	5.81	5.80	5.79	5.79	5.78	5.78	5.77	5.77	5.77
	5	6.61	5.79	5.41	5.19	5.05	4.95	4.88	4.82	4.77	4.74	4.70	4.68	4.66	4.64	4.62	4.60	4.59	4.58	4.57	4.56	4.56	4.55	4.54	4.53	4.53	4.52	4.52
	6	5.99	5.14	4.76	4.53	4.39	4.28	4.21	4.15	4.10	4.06	4.03	4.00	3.98	3.96	3.94	3.92	3.91	3.90	3.88	3.87	3.86	3.86	3.85	3.85	3.84	3.83	3.83
	7	5.59	4.74	4.35	4.12	3.97	3.87	3.79	3.73	3.68	3.64	3.60	3.57	3.55	3.53	3.51	3.49	3.48	3.47	3.46	3.44	3.44	3.43	3.43	3.42	3.41	3.40	3.40
	8	5.32	4.46	4.07	3.84	3.69	3.58	3.50	3.44	3.39	3.35	3.31	3.28	3.26	3.24	3.22	3.20	3.19	3.17	3.16	3.15	3.14	3.13	3.12	3.12	3.11	3.11	3.11
	9	5.12	4.26	3.86	3.63	3.48	3.37	3.29	3.23	3.18	3.14	3.10	3.07	3.05	3.03	3.01	2.99	2.97	2.96	2.95	2.94	2.93	2.92	2.91	2.90	2.90	2.89	2.89
	10	4.96	4.10	3.71	3.48	3.33	3.22	3.14	3.07	3.02	2.98	2.94	2.91	2.89	2.86	2.85	2.83	2.81	2.80	2.79	2.77	2.76	2.75	2.75	2.74	2.73	2.73	2.73
	11	4.84	3.98	3.59	3.36	3.20	3.09	3.01	2.95	2.90	2.85	2.82	2.79	2.76	2.74	2.72	2.70	2.69	2.67	2.66	2.65	2.64	2.63	2.62	2.61	2.60	2.60	2.60
	12	4.75	3.89	3.49	3.26	3.11	3.00	2.91	2.85	2.80	2.75	2.72	2.69	2.66	2.64	2.62	2.60	2.58	2.57	2.56	2.54	2.53	2.52	2.51	2.51	2.50	2.50	2.50
	13	4.67	3.81	3.41	3.18	3.03	2.92	2.83	2.77	2.71	2.67	2.63	2.60	2.58	2.55	2.53	2.51	2.50	2.48	2.47	2.46	2.45	2.44	2.43	2.42	2.41	2.41	2.41
	14	4.60	3.74	3.34	3.11	2.96	2.85	2.76	2.70	2.65	2.60	2.57	2.53	2.51	2.48	2.46	2.44	2.43	2.41	2.40	2.39	2.38	2.37	2.36	2.35	2.34	2.34	2.34
	15	4.54	3.68	3.29	3.06	2.90	2.79	2.71	2.64	2.59	2.54	2.51	2.48	2.45	2.42	2.40	2.38	2.37	2.35	2.34	2.33	2.32	2.31	2.30	2.29	2.28	2.28	2.28
	16	4.49	3.63	3.24	3.01	2.85	2.74	2.66	2.59	2.54	2.49	2.46	2.42	2.40	2.37	2.35	2.33	2.32	2.30	2.29	2.28	2.26	2.25	2.24	2.23	2.22	2.22	2.22
	17	4.45	3.59	3.20	2.96	2.81	2.70	2.61	2.55	2.49	2.45	2.41	2.38	2.35	2.33	2.31	2.29	2.27	2.26	2.24	2.23	2.22	2.21	2.20	2.19	2.18	2.18	2.18
	18	4.41	3.55	3.16	2.93	2.77	2.66	2.58	2.51	2.46	2.41	2.37	2.34	2.31	2.29	2.27	2.25	2.23	2.22	2.20	2.19	2.18	2.17	2.16	2.15	2.14	2.14	2.14
	19	4.38	3.52	3.13	2.90	2.74	2.63	2.54	2.48	2.42	2.38	2.34	2.31	2.28	2.26	2.23	2.21	2.20	2.18	2.17	2.16	2.14	2.13	2.12	2.11	2.11	2.11	2.11
	20	4.35	3.49	3.10	2.87	2.71	2.60	2.51	2.45	2.39	2.35	2.31	2.28	2.25	2.22	2.20	2.18	2.17	2.15	2.14	2.12	2.11	2.10	2.09	2.08	2.07	2.07	2.07
	21	4.32	3.47	3.07	2.84	2.68	2.57	2.49	2.42	2.37	2.32	2.28	2.25	2.22	2.20	2.18	2.16	2.14	2.12	2.11	2.10	2.08	2.07	2.06	2.05	2.04	2.04	2.04
	22	4.30	3.44	3.05	2.82	2.66	2.55	2.46	2.40	2.34	2.30	2.26	2.23	2.20	2.17	2.15	2.13	2.11	2.10	2.08	2.07	2.06	2.05	2.04	2.03	2.03	2.03	2.03
	23	4.28	3.42	3.03	2.80	2.64	2.53	2.44	2.37	2.32	2.27	2.24	2.20	2.18	2.15	2.13	2.11	2.09	2.08	2.06	2.05	2.04	2.02	2.01	2.01	2.01	2.01	2.01
	24	4.26	3.40	3.01	2.78	2.62	2.51	2.42	2.36	2.30	2.25	2.22	2.18	2.15	2.13	2.11	2.09	2.07	2.05	2.04	2.03	2.01	2.00	1.99	1.98	1.98	1.97	1.97
	25	4.24	3.39	2.99	2.76	2.60	2.49	2.40	2.34	2.28	2.24	2.20	2.16	2.14	2.11	2.09	2.07	2.05	2.04	2.02	2.01	2.00	1.98	1.97	1.96	1.96	1.96	1.96
	26	4.23	3.37	2.98	2.74	2.59	2.47	2.39	2.32	2.27	2.22	2.18	2.15	2.12	2.09	2.07	2.05	2.03	2.02	2.00	1.99	1.98	1.97	1.96	1.95	1.95	1.94	1.94
	27	4.21	3.35	2.96	2.73	2.57	2.46	2.37	2.31	2.25	2.20	2.17	2.13	2.10	2.08	2.06	2.04	2.02	2.00	1.99	1.97	1.96	1.95	1.94	1.93	1.93	1.92	1.92
	28	4.20	3.34	2.95	2.71	2.56	2.45	2.36	2.29	2.24	2.19	2.15	2.12	2.09	2.06	2.04	2.02	2.00	1.99	1.97	1.96	1.95	1.93	1.92	1.91	1.91	1.91	1.91
	29	4.18	3.33	2.93	2.70	2.55	2.43	2.35	2.28	2.22	2.18	2.14	2.10	2.08	2.05	2.03	2.01	1.99	1.97	1.96	1.94	1.93	1.92	1.91	1.90	1.90	1.89	1.89
	30	4.17	3.32	2.92	2.69	2.53	2.42	2.33	2.27	2.21	2.16	2.13	2.09	2.06	2.04	2.01	1.99	1.98	1.96	1.95	1.93	1.92	1.91	1.90	1.89	1.89	1.88	1.88



Values in the table are the "critical points," the f -values that give a probability of 0.05 in the right-hand tail.

F distribution Critical Points, Right-tail Probability = 0.025

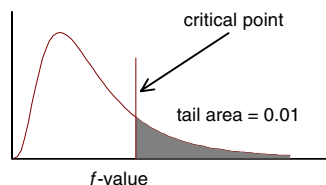
		degrees of freedom in numerator (v_1)																									
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
degrees of freedom in denominator (v_2)	1	648	799	864	900	922	937	948	957	963	969	973	977	980	983	985	987	989	990	992	993	994	995	996	997	998	
	2	38.5	39.0	39.2	39.2	39.3	39.3	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.5	39.5	39.5	39.5	39.5
	3	17.4	16.0	15.4	15.1	14.9	14.7	14.6	14.5	14.5	14.4	14.4	14.3	14.3	14.3	14.3	14.3	14.2	14.2	14.2	14.2	14.2	14.2	14.1	14.1	14.1	14.1
	4	12.2	10.6	9.98	9.60	9.36	9.20	9.07	8.98	8.90	8.84	8.79	8.75	8.72	8.68	8.66	8.63	8.61	8.59	8.58	8.56	8.55	8.53	8.52	8.51	8.50	8.50
	5	10.0	8.43	7.76	7.39	7.15	6.98	6.85	6.76	6.68	6.62	6.57	6.52	6.49	6.46	6.43	6.40	6.38	6.36	6.34	6.33	6.31	6.30	6.29	6.28	6.27	6.27
	6	8.81	7.26	6.60	6.23	5.99	5.82	5.70	5.60	5.52	5.46	5.41	5.37	5.33	5.30	5.27	5.24	5.22	5.20	5.18	5.17	5.15	5.14	5.13	5.12	5.11	5.11
	7	8.07	6.54	5.89	5.52	5.29	5.12	4.99	4.90	4.82	4.76	4.71	4.67	4.63	4.60	4.57	4.54	4.52	4.50	4.48	4.47	4.45	4.44	4.43	4.41	4.40	4.40
	8	7.57	6.06	5.42	5.05	4.82	4.65	4.53	4.43	4.36	4.30	4.24	4.20	4.16	4.13	4.10	4.08	4.05	4.03	4.02	4.00	3.98	3.97	3.96	3.95	3.94	3.94
	9	7.21	5.71	5.08	4.72	4.48	4.32	4.20	4.10	4.03	3.96	3.91	3.87	3.83	3.80	3.77	3.74	3.72	3.70	3.68	3.67	3.65	3.64	3.63	3.61	3.60	3.60
	10	6.94	5.46	4.83	4.47	4.24	4.07	3.95	3.85	3.78	3.72	3.66	3.62	3.58	3.55	3.52	3.50	3.47	3.45	3.44	3.42	3.40	3.39	3.38	3.37	3.35	3.35
	11	6.72	5.26	4.63	4.28	4.04	3.88	3.76	3.66	3.59	3.53	3.47	3.43	3.39	3.36	3.33	3.30	3.28	3.26	3.24	3.23	3.21	3.20	3.18	3.17	3.16	3.16
	12	6.55	5.10	4.47	4.12	3.89	3.73	3.61	3.51	3.44	3.37	3.32	3.28	3.24	3.21	3.18	3.15	3.13	3.11	3.09	3.07	3.06	3.04	3.03	3.02	3.01	3.01
	13	6.41	4.97	4.35	4.00	3.77	3.60	3.48	3.39	3.31	3.25	3.20	3.15	3.12	3.08	3.05	3.03	3.00	2.98	2.96	2.95	2.93	2.92	2.91	2.89	2.88	2.88
	14	6.30	4.86	4.24	3.89	3.66	3.50	3.38	3.29	3.21	3.15	3.09	3.05	3.01	2.98	2.95	2.92	2.90	2.88	2.86	2.84	2.83	2.81	2.80	2.79	2.78	2.78
	15	6.20	4.77	4.15	3.80	3.58	3.41	3.29	3.20	3.12	3.06	3.01	2.96	2.92	2.89	2.86	2.84	2.81	2.79	2.77	2.76	2.74	2.73	2.71	2.70	2.69	2.69
	16	6.12	4.69	4.08	3.73	3.50	3.34	3.22	3.12	3.05	2.99	2.93	2.89	2.85	2.82	2.79	2.76	2.74	2.72	2.70	2.68	2.67	2.65	2.64	2.63	2.61	2.61
	17	6.04	4.62	4.01	3.66	3.44	3.28	3.16	3.06	2.98	2.92	2.87	2.82	2.79	2.75	2.72	2.70	2.67	2.65	2.63	2.62	2.60	2.59	2.57	2.56	2.55	2.55
	18	5.98	4.56	3.95	3.61	3.38	3.22	3.10	3.01	2.93	2.87	2.81	2.77	2.73	2.70	2.67	2.64	2.62	2.60	2.58	2.56	2.54	2.53	2.52	2.50	2.49	2.49
	19	5.92	4.51	3.90	3.56	3.33	3.17	3.05	2.96	2.88	2.82	2.76	2.72	2.68	2.65	2.62	2.59	2.57	2.55	2.53	2.51	2.49	2.48	2.46	2.45	2.44	2.44
	20	5.87	4.46	3.86	3.51	3.29	3.13	3.01	2.91	2.84	2.77	2.72	2.68	2.64	2.60	2.57	2.55	2.52	2.50	2.48	2.46	2.45	2.43	2.42	2.41	2.40	2.40
	21	5.83	4.42	3.82	3.48	3.25	3.09	2.97	2.87	2.80	2.73	2.68	2.64	2.60	2.56	2.53	2.50	2.47	2.45	2.43	2.41	2.39	2.37	2.36	2.34	2.33	2.32
	22	5.79	4.38	3.78	3.44	3.22	3.05	2.93	2.84	2.76	2.70	2.65	2.60	2.56	2.53	2.50	2.47	2.44	2.42	2.40	2.39	2.37	2.36	2.34	2.33	2.31	2.30
	23	5.75	4.35	3.75	3.41	3.18	3.02	2.90	2.81	2.73	2.67	2.62	2.57	2.53	2.50	2.47	2.44	2.42	2.39	2.37	2.36	2.34	2.33	2.31	2.30	2.29	2.29
	24	5.72	4.32	3.72	3.38	3.15	2.99	2.87	2.78	2.70	2.64	2.59	2.54	2.50	2.47	2.44	2.41	2.39	2.36	2.34	2.32	2.30	2.28	2.27	2.26	2.25	2.25
	25	5.69	4.29	3.69	3.35	3.13	2.97	2.85	2.75	2.68	2.61	2.56	2.51	2.48	2.44	2.41	2.38	2.36	2.34	2.32	2.30	2.28	2.27	2.26	2.24	2.23	2.23
	26	5.66	4.27	3.67	3.33	3.10	2.94	2.82	2.73	2.65	2.59	2.54	2.49	2.45	2.42	2.39	2.36	2.34	2.31	2.29	2.28	2.26	2.24	2.23	2.22	2.21	2.21
	27	5.63	4.24	3.65	3.31	3.08	2.92	2.80	2.71	2.63	2.57	2.51	2.47	2.43	2.39	2.36	2.34	2.31	2.29	2.27	2.25	2.24	2.22	2.21	2.19	2.18	2.18
	28	5.61	4.22	3.63	3.29	3.06	2.90	2.78	2.69	2.61	2.55	2.49	2.45	2.41	2.37	2.34	2.32	2.29	2.27	2.25	2.23	2.22	2.20	2.19	2.17	2.16	2.16
	29	5.59	4.20	3.61	3.27	3.04	2.88	2.76	2.67	2.59	2.53	2.48	2.43	2.39	2.36	2.32	2.30	2.27	2.25	2.23	2.21	2.20	2.18	2.17	2.15	2.14	2.14
	30	5.57	4.18	3.59	3.25	3.03	2.87	2.75	2.65	2.57	2.51	2.46	2.41	2.37	2.34	2.31	2.28	2.26	2.23	2.21	2.20	2.18	2.16	2.15	2.14	2.12	2.12



Values in the table are the "critical points," the f -values that give a probability of 0.025 in the right-hand tail.

F distribution Critical Points, Right-tail Probability = 0.01

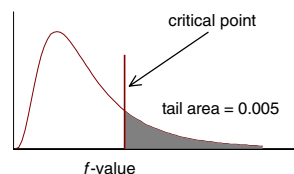
		degrees of freedom in numerator (v_1)																									
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
degrees of freedom in denominator (v_2)	1	4052	4999	5404	5624	5764	5859	5928	5981	6022	6056	6083	6107	6126	6143	6157	6170	6181	6191	6201	6209	6216	6223	6229	6234	6240	
	2	98.5	99.0	99.2	99.3	99.3	99.3	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.5	99.5	99.5	99.5	99.5
	3	34.1	30.8	29.5	28.7	28.2	27.9	27.7	27.5	27.3	27.2	27.1	27.1	27.0	26.9	26.9	26.8	26.8	26.8	26.7	26.7	26.7	26.6	26.6	26.6	26.6	26.6
	4	21.2	18.0	16.7	16.0	15.5	15.2	15.0	14.8	14.7	14.5	14.5	14.4	14.3	14.2	14.2	14.2	14.1	14.1	14.0	14.0	14.0	14.0	13.9	13.9	13.9	13.9
	5	16.3	13.3	12.1	11.4	11.0	10.7	10.5	10.3	10.2	10.1	9.96	9.89	9.82	9.77	9.72	9.68	9.64	9.61	9.58	9.55	9.53	9.51	9.49	9.47	9.45	9.45
	6	13.7	10.9	9.78	9.15	8.75	8.47	8.26	8.10	7.98	7.87	7.79	7.72	7.66	7.60	7.56	7.52	7.48	7.45	7.42	7.40	7.37	7.35	7.33	7.31	7.30	7.30
	7	12.2	9.55	8.45	7.85	7.46	7.19	6.99	6.84	6.72	6.62	6.54	6.47	6.41	6.36	6.31	6.28	6.24	6.21	6.18	6.16	6.13	6.11	6.09	6.07	6.06	6.06
	8	11.3	8.65	7.59	7.01	6.63	6.37	6.18	6.03	5.91	5.81	5.73	5.67	5.61	5.56	5.52	5.48	5.44	5.41	5.38	5.36	5.34	5.32	5.30	5.28	5.26	5.26
	9	10.6	8.02	6.99	6.42	6.06	5.80	5.61	5.47	5.35	5.26	5.18	5.11	5.05	5.01	4.96	4.92	4.89	4.86	4.83	4.81	4.79	4.77	4.75	4.73	4.71	4.71
	10	10.0	7.56	6.55	5.99	5.64	5.39	5.20	5.06	4.94	4.85	4.77	4.71	4.65	4.60	4.56	4.52	4.49	4.46	4.43	4.41	4.38	4.36	4.34	4.33	4.31	4.31
	11	9.65	7.21	6.22	5.67	5.32	5.07	4.89	4.74	4.63	4.54	4.46	4.40	4.34	4.29	4.25	4.21	4.18	4.15	4.12	4.10	4.08	4.06	4.04	4.02	4.01	4.01
	12	9.33	6.93	5.95	5.41	5.06	4.82	4.64	4.50	4.39	4.30	4.22	4.16	4.10	4.05	4.01	3.97	3.94	3.91	3.88	3.86	3.84	3.82	3.80	3.78	3.76	3.76
	13	9.07	6.70	5.74	5.21	4.86	4.62	4.44	4.30	4.19	4.10	4.02	3.96	3.91	3.86	3.82	3.78	3.75	3.72	3.69	3.66	3.64	3.62	3.60	3.59	3.57	3.57
	14	8.86	6.51	5.56	5.04	4.69	4.46	4.28	4.14	4.03	3.94	3.86	3.80	3.75	3.70	3.66	3.62	3.59	3.56	3.53	3.51	3.48	3.46	3.44	3.43	3.41	3.41
	15	8.68	6.36	5.42	4.89	4.56	4.32	4.14	4.00	3.89	3.80	3.73	3.67	3.61	3.56	3.52	3.49	3.45	3.42	3.40	3.37	3.35	3.33	3.31	3.29	3.28	3.28
	16	8.53	6.23	5.29	4.77	4.44	4.20	4.03	3.89	3.78	3.69	3.62	3.55	3.50	3.45	3.41	3.37	3.34	3.31	3.28	3.26	3.24	3.22	3.20	3.18	3.16	3.16
	17	8.40	6.11	5.19	4.67	4.34	4.10	3.93	3.79	3.68	3.59	3.52	3.46	3.40	3.35	3.31	3.27	3.24	3.21	3.19	3.16	3.14	3.12	3.10	3.08	3.07	3.07
	18	8.29	6.01	5.09	4.58	4.25	4.01	3.84	3.71	3.60	3.51	3.43	3.37	3.32	3.27	3.23	3.19	3.16	3.13	3.10	3.08	3.05	3.03	3.02	3.00	2.98	2.98
	19	8.18	5.93	5.01	4.50	4.17	3.94	3.77	3.63	3.52	3.43	3.36	3.30	3.24	3.19	3.15	3.12	3.08	3.05	3.03	3.00	2.98	2.96	2.94	2.92	2.91	2.91
	20	8.10	5.85	4.94	4.43	4.10	3.87	3.70	3.56	3.46	3.37	3.29	3.23	3.18	3.13	3.09	3.05	3.02	2.99	2.96	2.94	2.92	2.90	2.88	2.86	2.84	2.84
	21	8.02	5.78	4.87	4.37	4.04	3.81	3.64	3.51	3.40	3.31	3.24	3.17	3.12	3.07	3.03	2.99	2.96	2.93	2.90	2.88	2.86	2.84	2.82	2.80	2.79	2.79
	22	7.95	5.72	4.82	4.31	3.99	3.76	3.59	3.45	3.35	3.26	3.18	3.12	3.07	3.02	2.98	2.94	2.91	2.88	2.85	2.83	2.81	2.78	2.77	2.75	2.73	2.73
	23	7.88	5.66	4.76	4.26	3.94	3.71	3.54	3.41	3.30	3.21	3.14	3.07	3.02	2.97	2.93	2.89	2.86	2.83	2.80	2.78	2.76	2.74	2.72	2.70	2.69	2.69
	24	7.82	5.61	4.72	4.22	3.90	3.67	3.50	3.36	3.26	3.17	3.09	3.03	2.98	2.93	2.89	2.85	2.82	2.79	2.76	2.74	2.72	2.70	2.68	2.66	2.64	2.64
	25	7.77	5.57	4.68	4.18	3.85	3.63	3.46	3.32	3.22	3.13	3.06	2.99	2.94	2.89	2.85	2.81	2.78	2.75	2.72	2.70	2.68	2.66	2.64	2.62	2.60	2.60
	26	7.72	5.53	4.64	4.14	3.82	3.59	3.42	3.29	3.18	3.09	3.02	2.96	2.90	2.86	2.81	2.78	2.75	2.72	2.69	2.66	2.64	2.62	2.60	2.58	2.57	2.57
	27	7.68	5.49	4.60	4.11	3.78	3.56	3.39	3.26	3.15	3.06	2.99	2.93	2.87	2.82	2.78	2.75	2.71	2.68	2.66	2.63	2.61	2.59	2.57	2.55	2.54	2.54
	28	7.64	5.45	4.57	4.07	3.75	3.53	3.36	3.23	3.12	3.03	2.96	2.90	2.84	2.79	2.75	2.72	2.68	2.65	2.63	2.60	2.58	2.56	2.54	2.52	2.51	2.51
	29	7.60	5.42	4.54	4.04	3.73	3.50	3.33	3.20	3.09	3.00	2.93	2.87	2.81	2.77	2.73	2.69	2.66	2.63	2.60	2.57	2.55	2.53	2.51	2.49	2.48	2.48
	30	7.56	5.39	4.51	4.02	3.70	3.47	3.30	3.17	3.07	2.98	2.91	2.84	2.79	2.74	2.70	2.66	2.63	2.60	2.57	2.55	2.53	2.51	2.49	2.47	2.45	2.45



Values in the table are the "critical points," the f -values that give a probability of 0.01 in the right-hand tail.

F distribution Critical Points, Right-tail Probability = 0.005

		degrees of freedom in numerator (v_1)																								
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
degrees of freedom in denominator (v_2)	1	16212	19997	21614	22501	23056	23440	23715	23924	24091	24222	24334	24427	24505	24572	24632	24684	24728	24766	24803	24837	24863	24892	24915	24937	24959
	2	198.5	199.0	199.2	199.2	199.3	199.3	199.4	199.4	199.4	199.4	199.4	199.4	199.4	199.4	199.4	199.4	199.4	199.4	199.4	199.4	199.4	199.4	199.4	199.4	199.4
	3	55.6	49.8	47.5	46.2	45.4	44.8	44.4	44.1	43.9	43.7	43.5	43.4	43.3	43.2	43.1	43.0	42.9	42.9	42.8	42.8	42.7	42.7	42.7	42.6	42.6
	4	31.3	26.3	24.3	23.2	22.5	22.0	21.6	21.4	21.1	21.0	20.8	20.7	20.6	20.5	20.4	20.4	20.3	20.3	20.2	20.2	20.1	20.1	20.1	20.0	20.0
	5	22.8	18.3	16.5	15.6	14.9	14.5	14.2	14.0	13.8	13.6	13.5	13.4	13.3	13.2	13.1	13.1	13.0	13.0	12.9	12.9	12.9	12.8	12.8	12.8	12.8
	6	18.6	14.5	12.9	12.0	11.5	11.1	10.8	10.6	10.4	10.3	10.1	10.0	9.95	9.88	9.81	9.76	9.71	9.66	9.62	9.59	9.56	9.53	9.50	9.47	9.45
	7	16.2	12.4	10.9	10.1	9.52	9.16	8.89	8.68	8.51	8.38	8.27	8.18	8.10	8.03	7.97	7.91	7.87	7.83	7.79	7.75	7.72	7.69	7.67	7.64	7.62
	8	14.7	11.0	9.60	8.81	8.30	7.95	7.69	7.50	7.34	7.21	7.10	7.01	6.94	6.87	6.81	6.76	6.72	6.68	6.64	6.61	6.58	6.55	6.53	6.50	6.48
	9	13.6	10.1	8.72	7.96	7.47	7.13	6.88	6.69	6.54	6.42	6.31	6.23	6.15	6.09	6.03	5.98	5.94	5.90	5.86	5.83	5.80	5.78	5.75	5.73	5.71
	10	12.8	9.43	8.08	7.34	6.87	6.54	6.30	6.12	5.97	5.85	5.75	5.66	5.59	5.53	5.47	5.42	5.38	5.34	5.31	5.27	5.25	5.22	5.20	5.17	5.15
	11	12.2	8.91	7.60	6.88	6.42	6.10	5.86	5.68	5.54	5.42	5.32	5.24	5.16	5.10	5.05	5.00	4.96	4.92	4.89	4.86	4.83	4.80	4.78	4.76	4.74
	12	11.8	8.51	7.23	6.52	6.07	5.76	5.52	5.35	5.20	5.09	4.99	4.91	4.84	4.77	4.72	4.67	4.63	4.59	4.56	4.53	4.50	4.48	4.45	4.43	4.41
	13	11.4	8.19	6.93	6.23	5.79	5.48	5.25	5.08	4.94	4.82	4.72	4.64	4.57	4.51	4.46	4.41	4.37	4.33	4.30	4.27	4.24	4.22	4.19	4.17	4.15
	14	11.1	7.92	6.68	6.00	5.56	5.26	5.03	4.86	4.72	4.60	4.51	4.43	4.36	4.30	4.25	4.20	4.16	4.12	4.09	4.06	4.03	4.01	3.98	3.96	3.94
	15	10.8	7.70	6.48	5.80	5.37	5.07	4.85	4.67	4.54	4.42	4.33	4.25	4.18	4.12	4.07	4.02	3.98	3.95	3.91	3.88	3.86	3.83	3.81	3.79	3.77
	16	10.6	7.51	6.30	5.64	5.21	4.91	4.69	4.52	4.38	4.27	4.18	4.10	4.03	3.97	3.92	3.87	3.83	3.80	3.76	3.73	3.71	3.68	3.66	3.64	3.62
	17	10.4	7.35	6.16	5.50	5.07	4.78	4.56	4.39	4.25	4.14	4.05	3.97	3.90	3.84	3.79	3.75	3.71	3.67	3.64	3.61	3.58	3.56	3.53	3.51	3.49
	18	10.2	7.21	6.03	5.37	4.96	4.66	4.44	4.28	4.14	4.03	3.94	3.86	3.79	3.73	3.68	3.64	3.60	3.56	3.53	3.50	3.47	3.45	3.42	3.40	3.38
	19	10.1	7.09	5.92	5.27	4.85	4.56	4.34	4.18	4.04	3.93	3.84	3.76	3.70	3.64	3.59	3.54	3.50	3.46	3.43	3.40	3.37	3.35	3.33	3.31	3.29
	20	9.94	6.99	5.82	5.17	4.76	4.47	4.26	4.09	3.96	3.85	3.76	3.68	3.62	3.56	3.51	3.46	3.42	3.38	3.35	3.32	3.29	3.27	3.24	3.22	3.20
	21	9.83	6.89	5.73	5.09	4.68	4.39	4.18	4.01	3.88	3.77	3.68	3.60	3.54	3.48	3.43	3.38	3.34	3.31	3.27	3.24	3.22	3.19	3.17	3.15	3.13
	22	9.73	6.81	5.65	5.02	4.61	4.32	4.11	3.94	3.81	3.70	3.61	3.54	3.47	3.41	3.36	3.31	3.27	3.24	3.21	3.18	3.15	3.12	3.10	3.08	3.06
	23	9.63	6.73	5.58	4.95	4.54	4.26	4.05	3.88	3.75	3.64	3.55	3.47	3.41	3.35	3.30	3.25	3.21	3.18	3.15	3.12	3.09	3.06	3.04	3.02	3.00
	24	9.55	6.66	5.52	4.89	4.49	4.20	3.99	3.83	3.69	3.59	3.50	3.42	3.35	3.30	3.25	3.20	3.16	3.12	3.09	3.06	3.04	3.01	2.99	2.97	2.95
	25	9.48	6.60	5.46	4.84	4.43	4.15	3.94	3.78	3.64	3.54	3.45	3.37	3.30	3.25	3.20	3.15	3.11	3.08	3.04	3.01	2.99	2.96	2.94	2.92	2.90
	26	9.41	6.54	5.41	4.79	4.38	4.10	3.89	3.73	3.60	3.49	3.40	3.33	3.26	3.20	3.15	3.11	3.07	3.03	3.00	2.97	2.94	2.92	2.89	2.87	2.85
	27	9.34	6.49	5.36	4.74	4.34	4.06	3.85	3.69	3.56	3.45	3.36	3.28	3.22	3.16	3.11	3.07	3.03	2.99	2.96	2.93	2.90	2.88	2.85	2.83	2.81
	28	9.28	6.44	5.32	4.70	4.30	4.02	3.81	3.65	3.52	3.41	3.32	3.25	3.18	3.12	3.07	3.03	2.99	2.95	2.92	2.89	2.86	2.84	2.82	2.79	2.77
	29	9.23	6.40	5.28	4.66	4.26	3.98	3.77	3.61	3.48	3.38	3.29	3.21	3.15	3.09	3.04	2.99	2.95	2.92	2.88	2.86	2.83	2.80	2.78	2.76	2.74
	30	9.18	6.35	5.24	4.62	4.23	3.95	3.74	3.58	3.45	3.34	3.25	3.18	3.11	3.06	3.01	2.96	2.92	2.89	2.85	2.82	2.80	2.77	2.75	2.73	2.71



Values in the table are the "critical points," the f -values that give a probability of 0.005 in the right-hand tail.

Critical Points for Outlier Test Statistics - Univariate Data

critical values for testing at 95% confidence

n	T1	T2			T3	T4	T5
		k=2	k=3	k=4			
3	1.15				2.00	0.941	
4	1.46				2.43	0.765	
5	1.67	2.10			2.75	0.642	0.976
6	1.82	2.41			3.01	0.560	0.872
7	1.94	2.66	2.97		3.22	0.507	0.780
8	2.03	2.87	3.29		3.40	0.468	0.710
9	2.11	3.04	3.58	3.82	3.55	0.437	0.657
10	2.18	3.18	3.82	4.17	3.69	0.412	0.612
12	2.29	3.44	4.24	4.72	3.91	0.376	0.546
14	2.37	3.66	4.57	5.20	4.09	0.349	0.501
16	2.44	3.83	4.85	5.60	4.24	0.329	0.467
18	2.50	3.96	5.08	5.91	4.37	0.313	0.440
20	2.56	4.11	5.30	6.22	4.49	0.300	0.419
25	(2.65)	(4.34)	(5.67)	(6.74)	(4.69)	0.277	0.382
30	2.74	4.56	6.03	7.26	4.89	0.260	0.355

critical values for testing at 99% confidence

n	T1	T2			T3	T4	T5
		k=2	k=3	k=4			
3	1.15				2.00	0.988	
4	1.49				2.45	0.889	
5	1.75	2.16			2.80	0.780	0.995
6	1.94	2.50			3.10	0.698	0.951
7	2.10	2.79	3.08		3.34	0.637	0.885
8	2.22	3.02	3.42		3.54	0.590	0.829
9	2.32	3.22	3.73	3.98	3.72	0.555	0.776
10	2.41	3.40	4.00	4.34	3.87	0.527	0.726
12	2.55	3.70	4.44	4.92	4.13	0.482	0.642
14	2.66	3.92	4.83	5.42	4.34	0.450	0.593
16	2.75	4.10	5.14	5.85	4.52	0.426	0.557
18	2.82	4.25	5.38	6.20	4.67	0.407	0.529
20	2.88	4.41	5.60	6.54	4.80	0.391	0.506
25	(2.99)	(4.67)	(6.01)	(7.09)	(5.03)	0.362	0.464
30	3.10	4.92	6.41	7.64	5.26	0.341	0.433

	T1	T2	T3	T4	T5
upper	$\frac{x_n - \bar{x}}{s_r}$	$\frac{\sum(x_i - \bar{x})}{s_r}$	$\frac{x_n - x_1}{s_r}$	$\frac{x_n - x_{n-1}}{x_n - x_1}$	$\frac{x_n - x_{n-2}}{x_n - x_1}$
lower	$\frac{\bar{x} - x_1}{s_r}$	$\frac{\sum(\bar{x} - x_i)}{s_r}$		$\frac{x_2 - x_1}{x_n - x_1}$	$\frac{x_3 - x_1}{x_n - x_1}$

Note: the numbers in (parantheses) are estimated by linear interpolation from the neighboring values.