

# ***MATU9D2 : PRACTICAL STATISTICS***

## **STATISTICAL TABLES**

PAGE 1	:	Standard Normal Tables ( Z Less Than 0 )
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***SPRING 2017***

Table: Normal Distribution

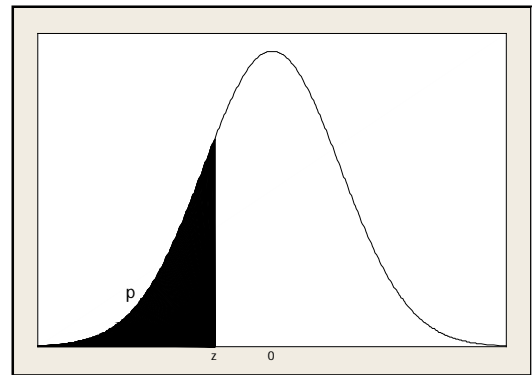


Table of Standard Normal Probabilities

[ Table entry for  $z$  is the probability lying below it ]

$z$	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
-3.4	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0002
-3.3	0.0005	0.0005	0.0005	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0003
-3.2	0.0007	0.0007	0.0006	0.0006	0.0006	0.0006	0.0006	0.0005	0.0005	0.0005
-3.1	0.0010	0.0009	0.0009	0.0009	0.0008	0.0008	0.0008	0.0008	0.0007	0.0007
-3.0	0.0013	0.0013	0.0013	0.0012	0.0012	0.0011	0.0011	0.0011	0.0010	0.0010
-2.9	0.0019	0.0018	0.0018	0.0017	0.0016	0.0016	0.0015	0.0015	0.0014	0.0014
-2.8	0.0026	0.0025	0.0024	0.0023	0.0023	0.0022	0.0021	0.0021	0.0020	0.0019
-2.7	0.0035	0.0034	0.0033	0.0032	0.0031	0.0030	0.0029	0.0028	0.0027	0.0026
-2.6	0.0047	0.0045	0.0044	0.0043	0.0041	0.0040	0.0039	0.0038	0.0037	0.0036
-2.5	0.0062	0.0060	0.0059	0.0057	0.0055	0.0054	0.0052	0.0051	0.0049	0.0048
-2.4	0.0082	0.0080	0.0078	0.0075	0.0073	0.0071	0.0069	0.0068	0.0066	0.0064
-2.3	0.0107	0.0104	0.0102	0.0099	0.0096	0.0094	0.0091	0.0089	0.0087	0.0084
-2.2	0.0139	0.0136	0.0132	0.0129	0.0125	0.0122	0.0119	0.0116	0.0113	0.0110
-2.1	0.0179	0.0174	0.0170	0.0166	0.0162	0.0158	0.0154	0.0150	0.0146	0.0143
-2.0	0.0228	0.0222	0.0217	0.0212	0.0207	0.0202	0.0197	0.0192	0.0188	0.0183
-1.9	0.0287	0.0281	0.0274	0.0268	0.0262	0.0256	0.0250	0.0244	0.0239	0.0233
-1.8	0.0359	0.0351	0.0344	0.0336	0.0329	0.0322	0.0314	0.0307	0.0301	0.0294
-1.7	0.0446	0.0436	0.0427	0.0418	0.0409	0.0401	0.0392	0.0384	0.0375	0.0367
-1.6	0.0548	0.0537	0.0526	0.0516	0.0505	0.0495	0.0485	0.0475	0.0465	0.0455
-1.5	0.0668	0.0655	0.0643	0.0630	0.0618	0.0606	0.0594	0.0582	0.0571	0.0559
-1.4	0.0808	0.0793	0.0778	0.0764	0.0749	0.0735	0.0721	0.0708	0.0694	0.0681
-1.3	0.0968	0.0951	0.0934	0.0918	0.0901	0.0885	0.0869	0.0853	0.0838	0.0823
-1.2	0.1151	0.1131	0.1112	0.1093	0.1075	0.1056	0.1038	0.1020	0.1003	0.0985
-1.1	0.1357	0.1335	0.1314	0.1292	0.1271	0.1251	0.1230	0.1210	0.1190	0.1170
-1.0	0.1587	0.1562	0.1539	0.1515	0.1492	0.1469	0.1446	0.1423	0.1401	0.1379
-0.9	0.1841	0.1814	0.1788	0.1762	0.1736	0.1711	0.1685	0.1660	0.1635	0.1611
-0.8	0.2119	0.2090	0.2061	0.2033	0.2005	0.1977	0.1949	0.1922	0.1894	0.1867
-0.7	0.2420	0.2389	0.2358	0.2327	0.2296	0.2266	0.2236	0.2206	0.2177	0.2148
-0.6	0.2743	0.2709	0.2676	0.2643	0.2611	0.2578	0.2546	0.2514	0.2483	0.2451
-0.5	0.3085	0.3050	0.3015	0.2981	0.2946	0.2912	0.2877	0.2843	0.2810	0.2776
-0.4	0.3446	0.3409	0.3372	0.3336	0.3300	0.3264	0.3228	0.3192	0.3156	0.3121
-0.3	0.3821	0.3783	0.3745	0.3707	0.3669	0.3632	0.3594	0.3557	0.3520	0.3483
-0.2	0.4207	0.4168	0.4129	0.4090	0.4052	0.4013	0.3974	0.3936	0.3897	0.3859
-0.1	0.4602	0.4562	0.4522	0.4483	0.4443	0.4404	0.4364	0.4325	0.4286	0.4247
0.0	0.5000	0.4960	0.4920	0.4880	0.4840	0.4801	0.4761	0.4721	0.4681	0.4641

Table : Normal Distribution

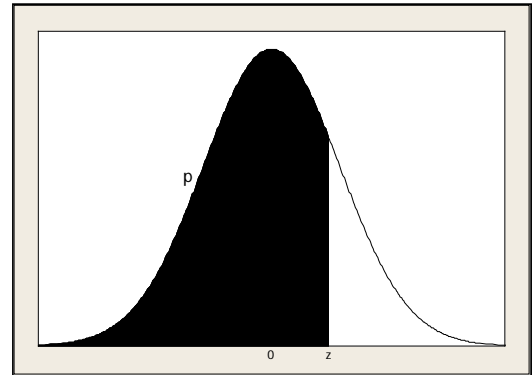


Table of Standard Normal Probabilities

[ Table entry for z is the probability lying below it ]

z	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.0	0.5000	0.5040	0.5080	0.5120	0.5160	0.5199	0.5239	0.5279	0.5319	0.5359
0.1	0.5398	0.5438	0.5478	0.5517	0.5557	0.5596	0.5636	0.5675	0.5714	0.5753
0.2	0.5793	0.5832	0.5871	0.5910	0.5948	0.5987	0.6026	0.6064	0.6103	0.6141
0.3	0.6179	0.6217	0.6255	0.6293	0.6331	0.6368	0.6406	0.6443	0.6480	0.6517
0.4	0.6554	0.6591	0.6628	0.6664	0.6700	0.6736	0.6772	0.6808	0.6844	0.6879
0.5	0.6915	0.6950	0.6985	0.7019	0.7054	0.7088	0.7123	0.7157	0.7190	0.7224
0.6	0.7257	0.7291	0.7324	0.7357	0.7389	0.7422	0.7454	0.7486	0.7517	0.7549
0.7	0.7580	0.7611	0.7642	0.7673	0.7704	0.7734	0.7764	0.7794	0.7823	0.7852
0.8	0.7881	0.7910	0.7939	0.7967	0.7995	0.8023	0.8051	0.8078	0.8106	0.8133
0.9	0.8159	0.8186	0.8212	0.8238	0.8264	0.8289	0.8315	0.8340	0.8365	0.8389
1.0	0.8413	0.8438	0.8461	0.8485	0.8508	0.8531	0.8554	0.8577	0.8599	0.8621
1.1	0.8643	0.8665	0.8686	0.8708	0.8729	0.8749	0.8770	0.8790	0.8810	0.8830
1.2	0.8849	0.8869	0.8888	0.8907	0.8925	0.8944	0.8962	0.8980	0.8997	0.9015
1.3	0.9032	0.9049	0.9066	0.9082	0.9099	0.9115	0.9131	0.9147	0.9162	0.9177
1.4	0.9192	0.9207	0.9222	0.9236	0.9251	0.9265	0.9279	0.9292	0.9306	0.9319
1.5	0.9332	0.9345	0.9357	0.9370	0.9382	0.9394	0.9406	0.9418	0.9429	0.9441
1.6	0.9452	0.9463	0.9474	0.9484	0.9495	0.9505	0.9515	0.9525	0.9535	0.9545
1.7	0.9554	0.9564	0.9573	0.9582	0.9591	0.9599	0.9608	0.9616	0.9625	0.9633
1.8	0.9641	0.9649	0.9656	0.9664	0.9671	0.9678	0.9686	0.9693	0.9699	0.9706
1.9	0.9713	0.9719	0.9726	0.9732	0.9738	0.9744	0.9750	0.9756	0.9761	0.9767
2.0	0.9772	0.9778	0.9783	0.9788	0.9793	0.9798	0.9803	0.9808	0.9812	0.9817
2.1	0.9821	0.9826	0.9830	0.9834	0.9838	0.9842	0.9846	0.9850	0.9854	0.9857
2.2	0.9861	0.9864	0.9868	0.9871	0.9875	0.9878	0.9881	0.9884	0.9887	0.9890
2.3	0.9893	0.9896	0.9898	0.9901	0.9904	0.9906	0.9909	0.9911	0.9913	0.9916
2.4	0.9918	0.9920	0.9922	0.9925	0.9927	0.9929	0.9931	0.9932	0.9934	0.9936
2.5	0.9938	0.9940	0.9941	0.9943	0.9945	0.9946	0.9948	0.9949	0.9951	0.9952
2.6	0.9953	0.9955	0.9956	0.9957	0.9959	0.9960	0.9961	0.9962	0.9963	0.9964
2.7	0.9965	0.9966	0.9967	0.9968	0.9969	0.9970	0.9971	0.9972	0.9973	0.9974
2.8	0.9974	0.9975	0.9976	0.9977	0.9977	0.9978	0.9979	0.9979	0.9980	0.9981
2.9	0.9981	0.9982	0.9982	0.9983	0.9984	0.9984	0.9985	0.9985	0.9986	0.9986
3.0	0.9987	0.9987	0.9987	0.9988	0.9988	0.9989	0.9989	0.9989	0.9990	0.9990
3.1	0.9990	0.9991	0.9991	0.9991	0.9992	0.9992	0.9992	0.9992	0.9993	0.9993
3.2	0.9993	0.9993	0.9994	0.9994	0.9994	0.9994	0.9994	0.9995	0.9995	0.9995
3.3	0.9995	0.9995	0.9995	0.9996	0.9996	0.9996	0.9996	0.9996	0.9996	0.9997
3.4	0.9997	0.9997	0.9997	0.9997	0.9997	0.9997	0.9997	0.9997	0.9997	0.9998

Table : t Distribution

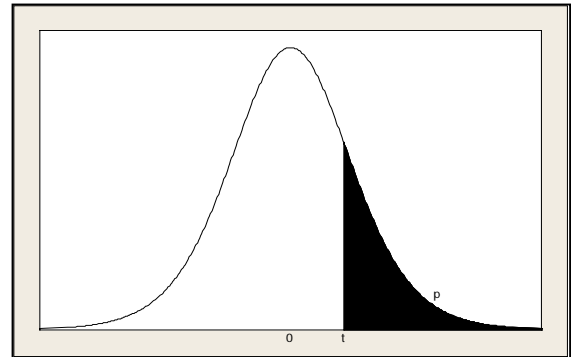


Table of Critical Values

[ Table entry is the point t with given probability p lying above it

df	Tail Probability p											
	0.25	0.2	0.15	0.1	0.05	0.025	0.02	0.01	0.005	0.0025	0.001	0.0005
1	1.000	1.376	1.963	3.078	6.314	12.71	15.89	31.82	63.66	127.3	318.3	636.6
2	0.816	1.061	1.386	1.886	2.920	4.303	4.849	6.965	9.925	14.09	22.33	31.60
3	0.765	0.978	1.250	1.638	2.353	3.182	3.482	4.541	5.841	7.453	10.21	12.92
4	0.741	0.941	1.190	1.533	2.132	2.776	2.999	3.747	4.604	5.598	7.173	8.610
5	0.727	0.920	1.156	1.476	2.015	2.571	2.757	3.365	4.032	4.773	5.894	6.869
6	0.718	0.906	1.134	1.440	1.943	2.447	2.612	3.143	3.707	4.317	5.208	5.959
7	0.711	0.896	1.119	1.415	1.895	2.365	2.517	2.998	3.499	4.029	4.785	5.408
8	0.706	0.889	1.108	1.397	1.860	2.306	2.449	2.896	3.355	3.833	4.501	5.041
9	0.703	0.883	1.100	1.383	1.833	2.262	2.398	2.821	3.250	3.690	4.297	4.781
10	0.700	0.879	1.093	1.372	1.812	2.228	2.359	2.764	3.169	3.581	4.144	4.587
11	0.697	0.876	1.088	1.363	1.796	2.201	2.328	2.718	3.106	3.497	4.025	4.437
12	0.695	0.873	1.083	1.356	1.782	2.179	2.303	2.681	3.055	3.428	3.930	4.318
13	0.694	0.870	1.079	1.350	1.771	2.160	2.282	2.650	3.012	3.372	3.852	4.221
14	0.692	0.868	1.076	1.345	1.761	2.145	2.264	2.624	2.977	3.326	3.787	4.140
15	0.691	0.866	1.074	1.341	1.753	2.131	2.249	2.602	2.947	3.286	3.733	4.073
16	0.690	0.865	1.071	1.337	1.746	2.120	2.235	2.583	2.921	3.252	3.686	4.015
17	0.689	0.863	1.069	1.333	1.740	2.110	2.224	2.567	2.898	3.222	3.646	3.965
18	0.688	0.862	1.067	1.330	1.734	2.101	2.214	2.552	2.878	3.197	3.610	3.922
19	0.688	0.861	1.066	1.328	1.729	2.093	2.205	2.539	2.861	3.174	3.579	3.883
20	0.687	0.860	1.064	1.325	1.725	2.086	2.197	2.528	2.845	3.153	3.552	3.850
21	0.686	0.859	1.063	1.323	1.721	2.080	2.189	2.518	2.831	3.135	3.527	3.819
22	0.686	0.858	1.061	1.321	1.717	2.074	2.183	2.508	2.819	3.119	3.505	3.792
23	0.685	0.858	1.060	1.319	1.714	2.069	2.177	2.500	2.807	3.104	3.485	3.768
24	0.685	0.857	1.059	1.318	1.711	2.064	2.172	2.492	2.797	3.091	3.467	3.745
25	0.684	0.856	1.058	1.316	1.708	2.060	2.167	2.485	2.787	3.078	3.450	3.725
26	0.684	0.856	1.058	1.315	1.706	2.056	2.162	2.479	2.779	3.067	3.435	3.707
27	0.684	0.855	1.057	1.314	1.703	2.052	2.158	2.473	2.771	3.057	3.421	3.689
28	0.683	0.855	1.056	1.313	1.701	2.048	2.154	2.467	2.763	3.047	3.408	3.674
29	0.683	0.854	1.055	1.311	1.699	2.045	2.150	2.462	2.756	3.038	3.396	3.660
30	0.683	0.854	1.055	1.310	1.697	2.042	2.147	2.457	2.750	3.030	3.385	3.646
40	0.681	0.851	1.050	1.303	1.684	2.021	2.123	2.423	2.704	2.971	3.307	3.551
50	0.679	0.849	1.047	1.299	1.676	2.009	2.109	2.403	2.678	2.937	3.261	3.496
60	0.679	0.848	1.045	1.296	1.671	2.000	2.099	2.390	2.660	2.915	3.232	3.460
80	0.678	0.846	1.043	1.292	1.664	1.990	2.088	2.374	2.639	2.887	3.195	3.416
100	0.677	0.845	1.042	1.290	1.660	1.984	2.081	2.364	2.626	2.871	3.174	3.390
1000	0.675	0.842	1.037	1.282	1.646	1.962	2.056	2.330	2.581	2.813	3.098	3.300
Infinity	0.674	0.842	1.036	1.282	1.645	1.960	2.054	2.326	2.576	2.807	3.090	3.291
Confidence Level C												
	50%	60%	70%	80%	90%	95%	96%	98%	99%	99.50%	99.80%	99.90%

Table : Chisquare Distribution

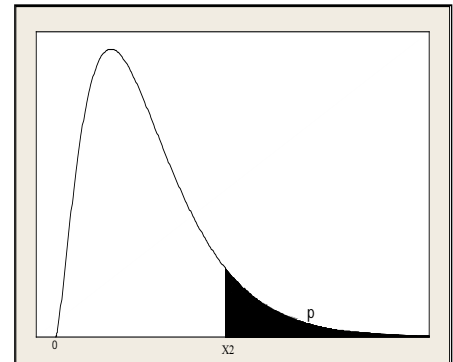
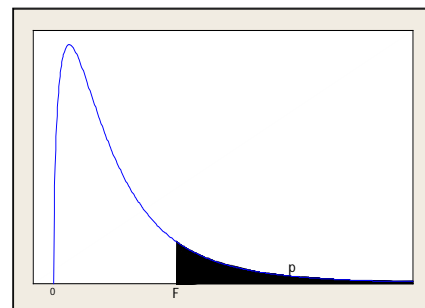


Table c Critical Values [ Table entry for the point with probability p lying above it ]

df	Upper Tail Probability p															
	0.995	0.99	0.975	0.95	0.9	0.25	0.2	0.15	0.1	0.05	0.025	0.02	0.01	0.005	0.0025	0.001
1	0.00	0.00	0.00	0.00	0.02	1.32	1.64	2.07	2.71	3.84	5.02	5.41	6.63	7.88	9.14	10.83
2	0.01	0.02	0.05	0.10	0.21	2.77	3.22	3.79	4.61	5.99	7.38	7.82	9.21	10.60	11.98	13.82
3	0.07	0.11	0.22	0.35	0.58	4.11	4.64	5.32	6.25	7.81	9.35	9.84	11.34	12.84	14.32	16.27
4	0.21	0.30	0.48	0.71	1.06	5.39	5.99	6.74	7.78	9.49	11.14	11.67	13.28	14.86	16.42	18.47
5	0.41	0.55	0.83	1.15	1.61	6.63	7.29	8.12	9.24	11.07	12.83	13.39	15.09	16.75	18.39	20.51
6	0.68	0.87	1.24	1.64	2.20	7.84	8.56	9.45	10.64	12.59	14.45	15.03	16.81	18.55	20.25	22.46
7	0.99	1.24	1.69	2.17	2.83	9.04	9.80	10.75	12.02	14.07	16.01	16.62	18.48	20.28	22.04	24.32
8	1.34	1.65	2.18	2.73	3.49	10.22	11.03	12.03	13.36	15.51	17.53	18.17	20.09	21.95	23.77	26.12
9	1.73	2.09	2.70	3.33	4.17	11.39	12.24	13.29	14.68	16.92	19.02	19.68	21.67	23.59	25.46	27.88
10	2.16	2.56	3.25	3.94	4.87	12.55	13.44	14.53	15.99	18.31	20.48	21.16	23.21	25.19	27.11	29.59
11	2.60	3.05	3.82	4.57	5.58	13.70	14.63	15.77	17.28	19.68	21.92	22.62	24.73	26.76	28.73	31.26
12	3.07	3.57	4.40	5.23	6.30	14.85	15.81	16.99	18.55	21.03	23.34	24.05	26.22	28.30	30.32	32.91
13	3.57	4.11	5.01	5.89	7.04	15.98	16.98	18.20	19.81	22.36	24.74	25.47	27.69	29.82	31.88	34.53
14	4.07	4.66	5.63	6.57	7.79	17.12	18.15	19.41	21.06	23.68	26.12	26.87	29.14	31.32	33.43	36.12
15	4.60	5.23	6.26	7.26	8.55	18.25	19.31	20.60	22.31	25.00	27.49	28.26	30.58	32.80	34.95	37.70
16	5.14	5.81	6.91	7.96	9.31	19.37	20.47	21.79	23.54	26.30	28.85	29.63	32.00	34.27	36.46	39.25
17	5.70	6.41	7.56	8.67	10.09	20.49	21.61	22.98	24.77	27.59	30.19	31.00	33.41	35.72	37.95	40.79
18	6.26	7.01	8.23	9.39	10.86	21.60	22.76	24.16	25.99	28.87	31.53	32.35	34.81	37.16	39.42	42.31
19	6.84	7.63	8.91	10.12	11.65	22.72	23.90	25.33	27.20	30.14	32.85	33.69	36.19	38.58	40.88	43.82
20	7.43	8.26	9.59	10.85	12.44	23.83	25.04	26.50	28.41	31.41	34.17	35.02	37.57	40.00	42.34	45.31
21	8.03	8.90	10.28	11.59	13.24	24.93	26.17	27.66	29.62	32.67	35.48	36.34	38.93	41.40	43.77	46.80
22	8.64	9.54	10.98	12.34	14.04	26.04	27.30	28.82	30.81	33.92	36.78	37.66	40.29	42.80	45.20	48.27
23	9.26	10.20	11.69	13.09	14.85	27.14	28.43	29.98	32.01	35.17	38.08	38.97	41.64	44.18	46.62	49.73
24	9.89	10.86	12.40	13.85	15.66	28.24	29.55	31.13	33.20	36.42	39.36	40.27	42.98	45.56	48.03	51.18
25	10.52	11.52	13.12	14.61	16.47	29.34	30.68	32.28	34.38	37.65	40.65	41.57	44.31	46.93	49.44	52.62
26	11.16	12.20	13.84	15.38	17.29	30.43	31.79	33.43	35.56	38.89	41.92	42.86	45.64	48.29	50.83	54.05
27	11.81	12.88	14.57	16.15	18.11	31.53	32.91	34.57	36.74	40.11	43.19	44.14	46.96	49.65	52.22	55.48
28	12.46	13.56	15.31	16.93	18.94	32.62	34.03	35.71	37.92	41.34	44.46	45.42	48.28	50.99	53.59	56.89
29	13.12	14.26	16.05	17.71	19.77	33.71	35.14	36.85	39.09	42.56	45.72	46.69	49.59	52.34	54.97	58.30
30	13.79	14.95	16.79	18.49	20.60	34.80	36.25	37.99	40.26	43.77	46.98	47.96	50.89	53.67	56.33	59.70
40	20.71	22.16	24.43	26.51	29.05	45.62	47.27	49.24	51.81	55.76	59.34	60.44	63.69	66.77	69.70	73.40
50	27.99	29.71	32.36	34.76	37.69	56.33	58.16	60.35	63.17	67.50	71.42	72.61	76.15	79.49	82.66	86.66
60	35.53	37.48	40.48	43.19	46.46	66.98	68.97	71.34	74.40	79.08	83.30	84.58	88.38	91.95	95.34	99.61
80	51.17	53.54	57.15	60.39	64.28	88.13	90.41	93.11	96.58	101.9	106.6	108.1	112.3	116.3	120.1	124.8
100	67.33	70.06	74.22	77.93	82.36	109.1	111.7	114.7	118.5	124.3	129.6	131.1	135.8	140.2	144.3	149.4

Table : F Distribution

Table of Critical Values Table entry is the point F with probability p lying above it.



DFD	p	Degrees of Freedom in the Numerator																				
		1	2	3	4	5	6	7	8	9	10	12	15	20	25	30	40	50	60	120	1000	
Degrees of Freedom in the Denominator	1	0.1	39.86	49.50	53.59	55.83	57.24	58.20	58.91	59.44	59.86	60.19	60.71	61.22	61.74	62.05	62.26	62.53	62.69	62.79	63.06	63.30
		0.05	161.45	199.50	215.71	224.58	230.16	233.99	236.77	238.88	240.54	241.88	243.90	245.95	248.02	249.26	250.10	251.14	251.77	252.20	253.25	254.19
		0.025	647.79	799.48	864.15	899.60	921.83	937.11	948.20	956.64	963.28	968.63	976.72	984.87	993.08	998.09	1001.40	1005.60	1008.10	1009.79	1014.04	1017.76
		0.01	4052.2	4999.3	5403.5	5624.3	5764.0	5859.0	5928.3	5981.0	6022.4	6055.9	6106.7	6157.0	6208.7	6239.9	6260.4	6286.4	6302.3	6313.0	6339.5	6362.8
		0.001	405312	499725	540257	562668	576496	586033	593185	597954	602245	605583	610352	616074	620842	623703	626087	628471	630379	631332	634193	636101
	2	0.1	8.53	9.00	9.16	9.24	9.29	9.33	9.35	9.37	9.38	9.39	9.41	9.42	9.44	9.45	9.46	9.47	9.47	9.47	9.48	9.49
		0.05	18.51	19.00	19.16	19.25	19.30	19.33	19.35	19.37	19.38	19.40	19.41	19.43	19.45	19.46	19.46	19.47	19.48	19.48	19.49	19.49
		0.025	38.51	39.00	39.17	39.25	39.30	39.33	39.36	39.37	39.39	39.40	39.41	39.43	39.45	39.46	39.46	39.47	39.48	39.48	39.49	39.50
		0.01	98.50	99.00	99.16	99.25	99.30	99.33	99.36	99.38	99.39	99.40	99.42	99.43	99.45	99.46	99.47	99.48	99.48	99.49	99.49	99.50
		0.001	998.38	998.84	999.31	999.31	999.31	999.31	999.31	999.31	999.31	999.31	999.31	999.31	999.31	999.31	999.31	999.31	999.31	999.31	999.31	999.31
	3	0.1	5.54	5.46	5.39	5.34	5.31	5.28	5.27	5.25	5.24	5.23	5.22	5.20	5.18	5.17	5.17	5.16	5.15	5.15	5.14	5.13
		0.05	10.13	9.55	9.28	9.12	9.01	8.94	8.89	8.85	8.81	8.79	8.74	8.70	8.66	8.63	8.62	8.59	8.58	8.57	8.55	8.53
		0.025	17.44	16.04	15.44	15.10	14.88	14.73	14.62	14.54	14.47	14.42	14.34	14.25	14.17	14.12	14.08	14.04	14.01	13.99	13.95	13.91
		0.01	34.12	30.82	29.46	28.71	28.24	27.91	27.67	27.49	27.34	27.23	27.05	26.87	26.69	26.58	26.50	26.41	26.35	26.32	26.22	26.14
		0.001	167.06	148.49	141.10	137.08	134.58	132.83	131.61	130.62	129.86	129.22	128.32	127.36	126.43	125.84	125.44	124.97	124.68	124.45	123.98	123.52
	4	0.1	4.54	4.32	4.19	4.11	4.05	4.01	3.98	3.95	3.94	3.92	3.90	3.87	3.84	3.83	3.82	3.80	3.80	3.79	3.78	3.76
		0.05	7.71	6.94	6.59	6.39	6.26	6.16	6.09	6.04	6.00	5.96	5.91	5.86	5.80	5.77	5.75	5.72	5.70	5.69	5.66	5.63
		0.025	12.22	10.65	9.98	9.60	9.36	9.20	9.07	8.98	8.90	8.84	8.75	8.66	8.56	8.50	8.46	8.41	8.38	8.36	8.31	8.26
		0.01	21.20	18.00	16.69	15.98	15.52	15.21	14.98	14.80	14.66	14.55	14.37	14.20	14.02	13.91	13.84	13.75	13.69	13.65	13.56	13.47
		0.001	74.13	61.25	56.17	53.43	51.72	50.52	49.65	49.00	48.47	48.05	47.41	46.76	46.10	45.69	45.43	45.08	44.88	44.75	44.40	44.09
	5	0.1	4.06	3.78	3.62	3.52	3.45	3.40	3.37	3.34	3.32	3.30	3.27	3.24	3.21	3.19	3.17	3.16	3.15	3.14	3.12	3.11
		0.05	6.61	5.79	5.41	5.19	5.05	4.95	4.88	4.82	4.77	4.74	4.68	4.62	4.56	4.52	4.50	4.46	4.44	4.43	4.40	4.37
		0.025	10.01	8.43	7.76	7.39	7.15	6.98	6.85	6.76	6.68	6.62	6.52	6.43	6.33	6.27	6.23	6.18	6.14	6.12	6.07	6.02
		0.01	16.26	13.27	12.06	11.39	10.97	10.67	10.46	10.29	10.16	10.05	9.89	9.72	9.55	9.45	9.38	9.29	9.24	9.20	9.11	9.03
		0.001	47.18	37.12	33.20	31.08	29.75	28.83	28.17	27.65	27.24	26.91	26.42	25.91	25.39	25.08	24.87	24.60	24.44	24.33	24.06	23.82
	6	0.1	3.78	3.46	3.29	3.18	3.11	3.05	3.01	2.98	2.96	2.94	2.90	2.87	2.84	2.81	2.80	2.78	2.77	2.76	2.74	2.72
		0.05	5.99	5.14	4.76	4.53	4.39	4.28	4.21	4.15	4.10	4.06	4.00	3.94	3.87	3.83	3.81	3.77	3.75	3.74	3.70	3.67
		0.025	8.81	7.26	6.60	6.23	5.99	5.82	5.70	5.60	5.52	5.46	5.37	5.27	5.17	5.11	5.07	5.01	4.98	4.96	4.90	4.86
		0.01	13.75	10.92	9.78	9.15	8.75	8.47	8.26	8.10	7.98	7.87	7.72	7.56	7.40	7.30	7.23	7.14	7.09	7.06	6.97	6.89
		0.001	35.51	27.00	23.71	21.92	20.80	20.03	19.46	19.03	18.69	18.41	17.99	17.56	17.12	16.85	16.67	16.44	16.31	16.21	15.98	15.77
	7	0.1	3.59	3.26	3.07	2.96	2.88	2.83	2.78	2.75	2.72	2.70	2.67	2.63	2.59	2.57	2.56	2.54	2.52	2.51	2.49	2.47
		0.05	5.59	4.74	4.35	4.12	3.97	3.87	3.79	3.73	3.68	3.64	3.57	3.51	3.44	3.40	3.38	3.34	3.32	3.30	3.27	3.23
		0.025	8.07	6.54	5.89	5.52	5.29	5.12	4.99	4.90	4.82	4.76	4.67	4.57	4.47	4.40	4.36	4.31	4.28	4.25	4.20	4.15
		0.01	12.25	9.55	8.45	7.85	7.46	7.19	6.99	6.84	6.72	6.62	6.47	6.31	6.16	6.06	5.99	5.91	5.86	5.82	5.74	5.66
		0.001	29.25	21.69	18.77	17.20	16.21	15.52	15.02	14.63	14.33	14.08	13.71	13.32	12.93	12.69	12.53	12.33	12.20	12.12	11.91	11.72
	8	0.1	3.46	3.11	2.92	2.81	2.73	2.67	2.62	2.59	2.56	2.54	2.50	2.46	2.42	2.40	2.38	2.36	2.35	2.34	2.32	2.30
		0.05	5.32	4.46	4.07	3.84	3.69	3.58	3.50	3.44	3.39	3.35	3.28	3.22	3.15	3.11	3.08	3.04	3.02	3.01	2.97	2.93
		0.025	7.57	6.06	5.42	5.05	4.82	4.65	4.53	4.43	4.36	4.30	4.20	4.10	4.00	3.94	3.89	3.84	3.81	3.78	3.73	3.68
		0.01	11.26	8.65	7.59	7.01	6.63	6.37	6.18	6.03	5.91	5.81	5.67	5.52	5.36	5.26	5.20	5.12	5.07	5.03	4.95	4.87
		0.001	25.41	18.49	15.83	14.39	13.48	12.86	12.40	12.05	11.77	11.54	11.19	10.84	10.48	10.26	10.11	9.92	9.80	9.73	9.53	9.36
	9	0.1	3.36	3.01	2.81	2.69	2.61	2.55	2.51	2.47	2.44	2.42	2.38	2.34	2.30	2.27	2.25	2.23	2.22	2.21	2.18	2.16
		0.05	5.12	4.26	3.86	3.63	3.48	3.37	3.29	3.23	3.18	3.14	3.07	3.01	2.94	2.89	2.86	2.83	2.80	2.79	2.75	2.71
		0.025	7.21	5.71	5.08	4.72	4.48	4.32	4.20	4.10	4.03	3.96	3.87	3.77	3.67	3.60	3.56	3.51	3.47	3.45	3.39	3.34
		0.01	10.56	8.02	6.99	6.42	6.06	5.80	5.61	5.47	5.35	5.26	5.11	4.96	4.81	4.71	4.65	4.57	4.52	4.48	4.40	4.32
		0.001	22.86	16.39	13.90	12.56	11.71	11.13	10.70	10.37	10.11	9.89	9.57	9.24	8.90	8.69	8.55	8.37	8.26	8.19	8.00	7.84
	10	0.1	3.29	2.92	2.73	2.61	2.52	2.46	2.41	2.38	2.35	2.32	2.28	2.24	2.20	2.17	2.16	2.13	2.12	2.11	2.08	2.06
		0.05	4.96	4.10	3.71	3.48	3.33	3.22	3.14	3.07	3.02	2.98	2.91	2.85	2.77	2.73	2.70	2.66	2.64	2.62	2.58	2.54
		0.025	6.94	5.46	4.83	4.47	4.24	4.07	3.95	3.85	3.78	3.72	3.62	3.52	3.42	3.35	3.31	3.26	3.22	3.20	3.14	3.09
		0.01	10.04	7.56	6.55	5.99	5.64	5.39	5.20	5.06	4.94	4.85	4.71	4.56	4.41	4.31	4.25	4.17	4.12	4.08	4.00	3.92
		0.001	21.04	14.90	12.55	11.28	10.48	9.93	9.52	9.20	8.96	8.75	8.45	8.13	7.80	7.60	7.47	7.30	7.19	7.12	6.94	6.78
	11	0.1	3.23	2.86	2.66	2.54	2.45	2.39	2.34	2.30	2.27	2.25	2.21	2.17	2.12	2.10	2.08	2.05	2.04	2.03	2.00	1.98
		0.05	4.84	3.98	3.59	3.36	3.20	3.09	3.01	2.95	2.90	2.85	2.79	2.72	2.65	2.60	2.57	2.53	2.51	2.49	2.45	2.41
		0.025	6.72	5.26	4.63	4.28	4.04	3.88	3.76	3.66	3.59	3.53	3.43	3.33	3.23	3.16	3.12	3.06	3.03	3.00	2.94	2.89
		0.01	9.65	7.21	6.22	5.67	5.32	5.07	4.89	4.74	4.63	4.54	4.40	4.25	4.10	4.01	3.94	3.86	3.81	3.78	3.69	3.61

Table : F Distribution

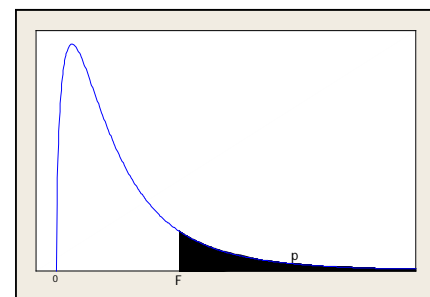


Table of Critical Values Table entry is the point F with probability p lying above it.

DFD	p	Degrees of Freedom in the Numerator																			
		1	2	3	4	5	6	7	8	9	10	12	15	20	25	30	40	50	60	120	1000
Degrees of Freedom in the Denominator	0.1	3.14	2.76	2.56	2.43	2.35	2.28	2.23	2.20	2.16	2.14	2.10	2.05	2.01	1.98	1.96	1.93	1.92	1.90	1.88	1.85
	0.05	4.67	3.81	3.41	3.18	3.03	2.92	2.83	2.77	2.71	2.67	2.60	2.53	2.46	2.41	2.38	2.34	2.31	2.30	2.25	2.21
	0.025	6.41	4.97	4.35	4.00	3.77	3.60	3.48	3.39	3.31	3.25	3.15	3.05	2.95	2.88	2.84	2.78	2.74	2.72	2.66	2.60
	0.01	9.07	6.70	5.74	5.21	4.86	4.62	4.44	4.30	4.19	4.10	3.96	3.82	3.66	3.57	3.51	3.43	3.38	3.34	3.25	3.18
	0.001	17.82	12.31	10.21	9.07	8.35	7.86	7.49	7.21	6.98	6.80	6.52	6.23	5.93	5.75	5.63	5.47	5.37	5.30	5.14	4.99
	0.1	3.10	2.73	2.52	2.39	2.31	2.24	2.19	2.15	2.12	2.10	2.05	2.01	1.96	1.93	1.91	1.89	1.87	1.86	1.83	1.80
	0.05	4.60	3.74	3.34	3.11	2.96	2.85	2.76	2.70	2.65	2.60	2.53	2.46	2.39	2.34	2.31	2.27	2.24	2.22	2.18	2.14
	0.025	6.30	4.86	4.24	3.89	3.66	3.50	3.38	3.29	3.21	3.15	3.05	2.95	2.84	2.78	2.73	2.67	2.64	2.61	2.55	2.50
	0.01	8.86	6.51	5.56	5.04	4.69	4.46	4.28	4.14	4.03	3.94	3.80	3.66	3.51	3.41	3.35	3.27	3.22	3.18	3.09	3.02
	0.001	17.14	11.78	9.73	8.62	7.92	7.44	7.08	6.80	6.58	6.40	6.13	5.85	5.56	5.38	5.25	5.10	5.00	4.94	4.77	4.62
	0.1	3.07	2.70	2.49	2.36	2.27	2.21	2.16	2.12	2.09	2.06	2.02	1.97	1.92	1.89	1.87	1.85	1.83	1.82	1.79	1.76
	0.05	4.54	3.68	3.29	3.06	2.90	2.79	2.71	2.64	2.59	2.54	2.48	2.40	2.33	2.28	2.25	2.20	2.18	2.16	2.11	2.07
	0.025	6.20	4.77	4.15	3.80	3.58	3.41	3.29	3.20	3.12	3.06	2.96	2.86	2.76	2.69	2.64	2.59	2.55	2.52	2.46	2.40
	0.01	8.68	6.36	5.42	4.89	4.56	4.32	4.14	4.00	3.89	3.80	3.67	3.52	3.37	3.28	3.21	3.13	3.08	3.05	2.96	2.88
	0.001	16.59	11.34	9.34	8.25	7.57	7.09	6.74	6.47	6.26	6.08	5.81	5.54	5.25	5.07	4.95	4.80	4.70	4.64	4.48	4.33
	0.1	3.05	2.67	2.46	2.33	2.24	2.18	2.13	2.09	2.06	2.03	1.99	1.94	1.89	1.86	1.84	1.81	1.79	1.78	1.75	1.72
	0.05	4.49	3.63	3.24	3.01	2.85	2.74	2.66	2.59	2.54	2.49	2.42	2.35	2.28	2.23	2.19	2.15	2.12	2.11	2.06	2.02
	0.025	6.12	4.69	4.08	3.73	3.50	3.34	3.22	3.12	3.05	2.99	2.89	2.79	2.68	2.61	2.57	2.51	2.47	2.45	2.38	2.32
	0.01	8.53	6.23	5.29	4.77	4.44	4.20	4.03	3.89	3.78	3.69	3.55	3.41	3.26	3.16	3.10	3.02	2.97	2.93	2.84	2.76
	0.001	16.12	10.97	9.01	7.94	7.27	6.80	6.46	6.20	5.98	5.81	5.55	5.27	4.99	4.82	4.70	4.54	4.45	4.39	4.23	4.08
	0.1	3.03	2.64	2.44	2.31	2.22	2.15	2.10	2.06	2.03	2.00	1.96	1.91	1.86	1.83	1.81	1.78	1.76	1.75	1.72	1.69
	0.05	4.45	3.59	3.20	2.96	2.81	2.70	2.61	2.55	2.49	2.45	2.38	2.31	2.23	2.18	2.15	2.10	2.08	2.06	2.01	1.97
	0.025	6.04	4.62	4.01	3.66	3.44	3.28	3.16	3.06	2.98	2.92	2.82	2.72	2.62	2.55	2.50	2.44	2.41	2.38	2.32	2.26
	0.01	8.40	6.11	5.19	4.67	4.34	4.10	3.93	3.79	3.68	3.59	3.46	3.31	3.16	3.07	3.00	2.92	2.87	2.83	2.75	2.66
	0.001	15.72	10.66	8.73	7.68	7.02	6.56	6.22	5.96	5.75	5.58	5.32	5.05	4.78	4.60	4.48	4.33	4.24	4.18	4.02	3.87
	0.1	3.01	2.62	2.42	2.29	2.20	2.13	2.08	2.04	2.00	1.98	1.93	1.89	1.84	1.80	1.78	1.75	1.74	1.72	1.69	1.66
	0.05	4.41	3.55	3.16	2.93	2.77	2.66	2.58	2.51	2.46	2.41	2.34	2.27	2.19	2.14	2.11	2.06	2.04	2.02	1.97	1.92
	0.025	5.98	4.56	3.95	3.61	3.38	3.22	3.10	3.01	2.93	2.87	2.77	2.67	2.56	2.49	2.44	2.38	2.35	2.32	2.26	2.20
	0.01	8.29	6.01	5.09	4.58	4.25	4.01	3.84	3.71	3.60	3.51	3.37	3.23	3.08	2.98	2.92	2.84	2.78	2.75	2.66	2.58
	0.001	15.38	10.39	8.49	7.46	6.81	6.35	6.02	5.76	5.56	5.39	5.13	4.87	4.59	4.42	4.30	4.15	4.06	4.00	3.84	3.69
	0.1	2.99	2.61	2.40	2.27	2.18	2.11	2.06	2.02	1.98	1.96	1.91	1.86	1.81	1.78	1.76	1.73	1.71	1.70	1.67	1.64
	0.05	4.38	3.52	3.13	2.90	2.74	2.63	2.54	2.48	2.42	2.38	2.31	2.23	2.16	2.11	2.07	2.03	2.00	1.98	1.93	1.88
	0.025	5.92	4.51	3.90	3.56	3.33	3.17	3.05	2.96	2.88	2.82	2.72	2.62	2.51	2.44	2.39	2.33	2.30	2.27	2.20	2.14
	0.01	8.18	5.93	5.01	4.50	4.17	3.94	3.77	3.63	3.52	3.43	3.30	3.15	3.00	2.91	2.84	2.76	2.71	2.67	2.58	2.50
	0.001	15.08	10.16	8.28	7.27	6.62	6.18	5.85	5.59	5.39	5.22	4.97	4.70	4.43	4.26	4.14	3.99	3.90	3.84	3.68	3.53
	0.1	2.97	2.59	2.38	2.25	2.16	2.09	2.04	2.00	1.96	1.94	1.89	1.84	1.79	1.76	1.74	1.71	1.69	1.68	1.64	1.61
	0.05	4.35	3.49	3.10	2.87	2.71	2.60	2.51	2.45	2.39	2.35	2.28	2.20	2.12	2.07	2.04	1.99	1.97	1.95	1.90	1.85
	0.025	5.87	4.46	3.86	3.51	3.29	3.13	3.01	2.91	2.84	2.77	2.68	2.57	2.46	2.40	2.35	2.29	2.25	2.22	2.16	2.09
	0.01	8.10	5.85	4.94	4.43	4.10	3.87	3.70	3.56	3.46	3.37	3.23	3.09	2.94	2.84	2.78	2.69	2.64	2.61	2.52	2.43
	0.001	14.82	9.95	8.10	7.10	6.46	6.02	5.69	5.44	5.24	5.08	4.82	4.56	4.29	4.12	4.00	3.86	3.77	3.70	3.54	3.40
	0.1	2.96	2.57	2.36	2.23	2.14	2.08	2.02	1.98	1.95	1.92	1.87	1.83	1.78	1.74	1.72	1.69	1.67	1.66	1.62	1.59
	0.05	4.32	3.47	3.07	2.84	2.68	2.57	2.49	2.42	2.37	2.32	2.25	2.18	2.10	2.05	2.01	1.96	1.94	1.92	1.87	1.82
	0.025	5.83	4.42	3.82	3.48	3.25	3.09	2.97	2.87	2.80	2.73	2.64	2.53	2.42	2.36	2.31	2.25	2.21	2.18	2.11	2.05
	0.01	8.02	5.78	4.87	4.37	4.04	3.81	3.64	3.51	3.40	3.31	3.17	3.03	2.88	2.79	2.72	2.64	2.58	2.55	2.46	2.37
	0.001	14.59	9.77	7.94	6.95	6.32	5.88	5.56	5.31	5.11	4.95	4.70	4.44	4.17	4.00	3.88	3.74	3.64	3.58	3.42	3.28
	0.1	2.95	2.56	2.35	2.22	2.13	2.06	2.01	1.97	1.93	1.90	1.86	1.81	1.76	1.73	1.70	1.67	1.65	1.64	1.60	1.57
	0.05	4.30	3.44	3.05	2.82	2.66	2.55	2.46	2.40	2.34	2.30	2.23	2.15	2.07	2.02	1.98	1.94	1.91	1.89	1.84	1.79
	0.025	5.79	4.38	3.78	3.44	3.22	3.05	2.93	2.84	2.76	2.70	2.60	2.50	2.39	2.32	2.27	2.21	2.17	2.14	2.08	2.01
	0.01	7.95	5.72	4.82	4.31	3.99	3.76	3.59	3.45	3.35	3.26	3.12	2.98	2.83	2.73	2.67	2.58	2.53	2.50	2.40	2.32
	0.001	14.38	9.61	7.80	6.81	6.19	5.76	5.44	5.19	4.99	4.83	4.58	4.33	4.06	3.89	3.78	3.63	3.54	3.48	3.32	3.17
	0.1	2.94	2.55	2.34	2.21	2.11	2.05	1.99	1.95	1.92	1.89	1.84	1.80	1.74	1.71	1.69	1.66	1.64	1.62	1.59	1.55
	0.05	4.28	3.42	3.03	2.80	2.64	2.53	2.44	2.37	2.32	2.27	2.20	2.13	2.05	2.00	1.96	1.91	1.88	1.86	1.81	1.76
	0.025	5.75	4.35	3.75	3.41	3.18	3.02	2.90	2.81	2.73	2.67	2.57	2.47	2.36	2.29	2.24	2.18	2.14	2.11	2.04	1.98
	0.01	7.88	5.66	4.76	4.26	3.94	3.71	3.54	3.41	3.30	3.21	3.07	2.93	2.78	2.69	2.62	2.54	2.48	2.45	2.35	2.27
	0.001	14.20	9.47	7.67	6.70	6.08	5.65	5.33	5.09	4.89	4.73	4.48	4.23	3.96	3.79	3.68	3.53	3.44	3.38	3.22	3.08
	0.1	2.93	2.54	2.33	2.19	2.10	2.04	1.98	1.94	1.91	1.88	1.83	1.78	1.73	1.70	1.67	1.64	1.62	1.61	1.57	1.54
	0.05	4.26	3.40	3.01	2.78	2.62	2.51	2.42	2.36	2.30	2.25	2.18	2.11	2.03	1.97	1.94	1.89	1.86	1.84	1.79	1.74
	0.025	5.72	4.32	3.72	3.38	3.15	2.99	2.87	2.78	2.70	2.64	2.54									

Table : F Distribution

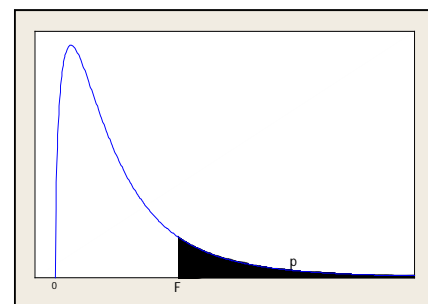


Table of Critical Values Table entry is the point F with probability p lying above it.

DFD	p	Degrees of Freedom in the Numerator																				
		1	2	3	4	5	6	7	8	9	10	12	15	20	25	30	40	50	60	120	1000	
Degrees of Freedom in the Denominator	25	0.1 0.05 0.025 0.01 0.001	2.92 4.24 5.69 7.77 13.88	2.53 3.39 4.29 5.57 9.22	2.32 2.99 3.69 4.68 7.45	2.18 2.76 3.35 4.18 6.49	2.09 2.60 3.13 3.85 5.89	2.02 2.49 2.85 3.46 5.46	1.97 2.34 2.75 3.32 5.15	1.93 2.34 2.75 3.22 4.91	1.89 2.28 2.68 3.13 4.71	1.87 2.24 2.61 2.99 4.56	1.82 2.16 2.51 2.85 4.31	1.77 2.09 2.41 2.70 4.06	1.72 2.01 2.30 2.60 3.79	1.68 1.96 2.23 2.60 3.63	1.66 1.92 2.18 2.54 3.52	1.63 1.87 2.12 2.45 3.37	1.61 1.84 2.08 2.40 3.28	1.59 1.82 2.05 2.36 3.22	1.56 1.77 1.98 2.27 3.06	1.52 1.72 1.91 2.18 2.91
	26	0.1 0.05 0.025 0.01 0.001	2.91 4.23 5.66 7.72 13.74	2.52 3.37 4.27 5.53 9.12	2.31 2.98 3.67 4.64 7.36	2.17 2.74 3.33 4.14 6.41	2.08 2.59 3.10 3.82 5.80	2.01 2.47 2.82 3.42 5.38	1.96 2.39 2.73 3.29 5.07	1.92 2.32 2.73 3.29 4.83	1.88 2.27 2.65 3.18 4.64	1.86 2.22 2.59 2.96 4.48	1.81 2.15 2.49 2.81 4.24	1.76 2.07 2.39 2.66 3.99	1.71 1.99 2.28 2.57 3.72	1.67 1.94 2.21 2.50 3.56	1.65 1.90 2.16 2.50 3.44	1.61 1.85 2.09 2.42 3.30	1.59 1.82 2.05 2.36 3.21	1.58 1.80 2.03 2.33 3.15	1.54 1.75 1.95 2.23 2.99	1.51 1.70 1.89 2.14 2.84
	27	0.1 0.05 0.025 0.01 0.001	2.90 4.21 5.63 7.68 13.61	2.51 3.35 4.24 5.49 9.02	2.30 2.96 3.65 4.60 7.27	2.17 2.73 3.31 4.11 6.33	2.07 2.57 3.08 3.78 5.73	2.00 2.46 2.82 3.39 5.31	1.95 2.37 2.71 3.26 4.76	1.91 2.31 2.63 3.15 4.57	1.87 2.25 2.57 3.06 4.41	1.85 2.20 2.47 2.93 4.17	1.80 2.13 2.36 2.78 3.92	1.75 2.06 2.25 2.63 3.66	1.70 1.97 2.18 2.54 3.49	1.66 1.92 2.18 2.54 3.49	1.64 1.88 2.13 2.47 3.38	1.60 1.84 2.07 2.38 3.23	1.58 1.81 2.03 2.33 3.14	1.57 1.79 2.00 2.29 3.08	1.53 1.73 1.93 2.20 2.92	1.50 1.68 1.86 2.11 2.78
	28	0.1 0.05 0.025 0.01 0.001	2.89 4.20 5.61 7.64 13.50	2.50 3.34 4.22 5.45 8.93	2.29 2.95 3.63 4.57 7.19	2.16 2.71 3.29 4.07 6.25	2.06 2.56 3.06 3.75 5.66	2.00 2.45 2.80 3.36 5.24	1.94 2.36 2.69 3.23 4.69	1.90 2.29 2.61 3.12 4.50	1.87 2.24 2.55 3.03 4.35	1.84 2.19 2.45 2.90 4.11	1.79 2.12 2.34 2.75 3.86	1.74 2.04 2.23 2.60 3.60	1.69 1.96 2.16 2.50 3.43	1.65 1.91 2.16 2.51 3.32	1.63 1.87 2.11 2.44 3.18	1.59 1.82 2.05 2.35 3.09	1.57 1.79 2.01 2.30 3.02	1.56 1.77 1.98 2.26 2.86	1.52 1.71 1.91 2.17 2.72	1.48 1.66 1.84 2.08 2.61
	29	0.1 0.05 0.025 0.01 0.001	2.89 4.18 5.59 7.60 13.39	2.50 3.33 4.20 5.42 8.85	2.28 2.93 3.61 4.54 7.12	2.15 2.70 3.27 4.04 6.19	2.06 2.55 3.04 3.73 5.59	1.99 2.43 2.88 3.33 5.18	1.93 2.35 2.67 3.20 4.64	1.89 2.28 2.59 3.09 4.45	1.86 2.22 2.53 2.93 4.29	1.83 2.18 2.43 2.73 4.05	1.78 2.10 2.32 2.67 3.80	1.73 2.03 2.21 2.57 3.54	1.68 1.94 2.14 2.48 3.38	1.64 1.89 2.14 2.48 3.27	1.62 1.85 2.09 2.41 3.12	1.58 1.81 2.03 2.33 3.03	1.56 1.77 1.99 2.27 2.97	1.55 1.75 1.96 2.23 2.81	1.51 1.70 1.89 2.14 2.66	1.47 1.65 1.82 2.05 2.66
	30	0.1 0.05 0.025 0.01 0.001	2.88 4.17 5.57 7.56 13.29	2.49 3.32 4.18 5.39 8.77	2.28 2.92 3.59 4.51 7.05	2.14 2.69 3.25 4.02 6.12	2.05 2.53 3.03 3.70 5.53	1.98 2.42 2.87 3.30 5.12	1.93 2.33 2.75 3.17 4.82	1.88 2.27 2.65 3.07 4.39	1.85 2.21 2.57 2.98 4.24	1.82 2.16 2.41 2.84 4.00	1.77 2.09 2.31 2.70 3.75	1.72 2.01 2.20 2.55 3.49	1.67 1.93 2.12 2.45 3.33	1.63 1.88 2.12 2.45 3.22	1.61 1.84 2.07 2.39 3.07	1.57 1.79 2.01 2.30 3.07	1.55 1.76 1.97 2.25 2.98	1.54 1.74 1.94 2.22 2.92	1.50 1.68 1.87 2.11 2.76	1.46 1.63 1.80 2.02 2.61
	40	0.1 0.05 0.025 0.01 0.001	2.84 4.08 5.42 7.31 12.61	2.44 3.23 4.05 5.18 8.25	2.23 2.84 3.46 4.31 6.59	2.09 2.61 3.13 3.83 5.70	2.00 2.45 2.90 3.51 4.73	1.93 2.34 2.74 3.29 4.44	1.87 2.25 2.62 3.12 4.21	1.83 2.18 2.53 2.89 4.02	1.79 2.12 2.45 2.80 3.87	1.76 2.08 2.29 2.66 3.64	1.71 2.00 2.18 2.52 3.40	1.66 1.92 2.18 2.37 3.15	1.61 1.84 2.07 2.27 2.98	1.57 1.84 2.07 2.27 2.98	1.54 1.78 1.99 2.20 2.87	1.51 1.74 1.94 2.11 2.73	1.48 1.69 1.88 2.06 2.64	1.47 1.66 1.83 2.02 2.57	1.42 1.58 1.72 1.92 2.41	1.38 1.52 1.65 1.82 2.25
	50	0.1 0.05 0.025 0.01 0.001	2.81 4.03 5.34 7.17 12.22	2.41 3.18 3.97 5.06 7.96	2.20 2.79 3.39 4.20 6.34	2.06 2.56 3.05 3.72 5.46	1.97 2.40 2.83 3.41 4.51	1.90 2.29 2.67 3.19 4.22	1.84 2.20 2.55 3.02 4.00	1.80 2.13 2.46 2.89 3.82	1.76 2.07 2.38 2.78 3.67	1.73 2.03 2.32 2.70 3.44	1.68 1.95 2.22 2.56 3.20	1.63 1.87 2.11 2.42 3.20	1.57 1.87 1.99 2.27 2.95	1.53 1.73 1.92 2.17 2.79	1.50 1.69 1.87 2.10 2.68	1.46 1.63 1.80 2.01 2.53	1.44 1.60 1.75 1.95 2.44	1.42 1.58 1.72 1.91 2.38	1.38 1.51 1.64 1.80 2.21	1.33 1.45 1.56 1.70 2.05
	60	0.1 0.05 0.025 0.01 0.001	2.79 4.00 5.29 7.08 11.97	2.39 3.15 3.93 4.98 7.77	2.18 2.76 3.34 4.13 6.17	2.04 2.53 3.01 3.65 4.76	1.95 2.37 2.63 3.12 4.37	1.87 2.25 2.51 2.95 4.09	1.82 2.17 2.41 2.82 3.86	1.77 2.10 2.33 2.72 3.69	1.74 2.04 2.27 2.63 3.54	1.71 1.99 2.17 2.50 3.32	1.66 1.92 2.17 2.35 3.08	1.61 1.84 2.06 2.20 2.83	1.56 1.84 1.94 2.20 2.83	1.54 1.75 1.87 2.10 2.67	1.50 1.69 1.82 2.03 2.55	1.48 1.65 1.74 1.94 2.41	1.44 1.59 1.70 1.88 2.32	1.41 1.56 1.67 1.84 2.25	1.35 1.53 1.67 1.84 2.25	1.30 1.47 1.58 1.73 2.08
	100	0.1 0.05 0.025 0.01 0.001	2.76 3.94 5.18 6.90 11.50	2.36 3.09 3.83 4.82 7.41	2.14 2.70 3.25 3.98 5.86	2.00 2.46 2.92 3.51 4.48	1.91 2.31 2.54 3.21 4.11	1.83 2.19 2.42 2.89 3.83	1.78 2.10 2.32 2.69 3.61	1.73 2.03 2.24 2.59 3.44	1.69 1.97 2.18 2.50 3.30	1.66 1.93 2.08 2.37 3.07	1.61 1.85 1.97 2.22 2.84	1.56 1.77 1.85 2.07 2.59	1.49 1.68 1.77 1.97 2.43	1.45 1.62 1.71 1.89 2.32	1.42 1.57 1.64 1.80 2.27	1.38 1.52 1.59 1.74 2.17	1.35 1.48 1.56 1.71 2.08	1.34 1.45 1.51 1.69 2.01	1.28 1.38 1.46 1.57 1.83	1.22 1.30 1.36 1.45 1.64
	200	0.1 0.05 0.025 0.01 0.001	2.73 3.89 5.10 6.76 11.15	2.33 3.04 3.76 4.71 7.15	2.11 2.65 3.18 3.88 5.63	1.97 2.42 2.85 3.41 4.81	1.88 2.26 2.63 3.11 3.92	1.80 2.14 2.47 2.73 3.65	1.75 2.06 2.35 2.60 3.43	1.70 1.98 2.26 2.50 3.26	1.66 1.88 2.11 2.27 3.12	1.63 1.80 2.06 2.21 2.90	1.58 1.72 1.90 1.97 2.67	1.52 1.62 1.78 1.87 2.42	1.46 1.62 1.70 1.87 2.26	1.41 1.56 1.64 1.79 2.15	1.38 1.52 1.56 1.69 2.00	1.34 1.46 1.51 1.63 1.90	1.31 1.41 1.47 1.58 1.83	1.29 1.39 1.47 1.58 1.64	1.23 1.30 1.37 1.45 1.64	1.16 1.21 1.25 1.30 1.43
	1000	0.1 0.05 0.025 0.01 0.001	2.71 3.85 5.04 6.66 10.89	2.31 3.00 3.70 4.63 6.96	2.09 2.61 3.13 3.80 5.46	1.95 2.38 2.80 3.34 4.65	1.85 2.22 2.58 2.82 3.78	1.78 2.11 2.42 2.66 3.51	1.72 2.02 2.30 2.53 3.30	1.68 1.95 2.20 2.43 3.13	1.64 1.89 2.13 2.34 2.99	1.61 1.76 1.96 2.06 2.77	1.55 1.68 1.85 1.90 2.54	1.49 1.58 1.72 1.79 2.30	1.43 1.58 1.64 1.72 2.14	1.38 1.52 1.58 1.61 2.02	1.35 1.47 1.50 1.54 1.87	1.30 1.41 1.45 1.50 1.77	1.27 1.36 1.41 1.45 1.69	1.25 1.33 1.41 1.45 1.69	1.18 1.24 1.29 1.35 1.49	1.08 1.11 1.13 1.16 1.22