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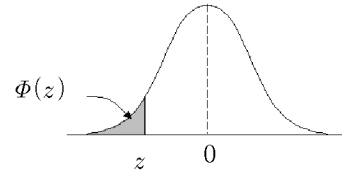
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부록 1. 표준정규분포표

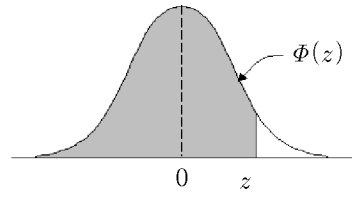
$$\Phi(z) = P(Z \leq z) = \int_{-\infty}^z \frac{1}{\sqrt{2\pi}} e^{-u^2/2} du$$



z	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09
-3.4	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0002
-3.3	.0005	.0005	.0005	.0004	.0004	.0004	.0004	.0004	.0004	.0003
-3.2	.0007	.0007	.0006	.0006	.0006	.0006	.0006	.0005	.0005	.0005
-3.1	.0010	.0009	.0009	.0009	.0008	.0008	.0008	.0008	.0007	.0007
-3.0	.0013	.0013	.0013	.0012	.0012	.0011	.0011	.0011	.0010	.0010
-2.9	.0019	.0018	.0017	.0017	.0016	.0016	.0015	.0015	.0014	.0014
-2.8	.0026	.0025	.0024	.0023	.0023	.0022	.0021	.0021	.0020	.0019
-2.7	.0035	.0034	.0033	.0032	.0031	.0030	.0029	.0028	.0027	.0026
-2.6	.0047	.0045	.0044	.0043	.0041	.0040	.0039	.0038	.0037	.0036
-2.5	.0062	.0060	.0059	.0057	.0055	.0054	.0052	.0051	.0049	.0048
-2.4	.0082	.0080	.0078	.0075	.0073	.0071	.0069	.0068	.0066	.0064
-2.3	.0107	.0104	.0102	.0099	.0096	.0094	.0091	.0089	.0087	.0084
-2.2	.0139	.0136	.0132	.0129	.0125	.0122	.0119	.0116	.0113	.0110
-2.1	.0179	.0174	.0170	.0166	.0162	.0158	.0154	.0150	.0146	.0143
-2.0	.0228	.0222	.0217	.0212	.0207	.0202	.0197	.0192	.0188	.0183
-1.9	.0287	.0281	.0274	.0268	.0262	.0256	.0250	.0244	.0239	.0233
-1.8	.0359	.0352	.0344	.0336	.0329	.0322	.0314	.0307	.0301	.0294
-1.7	.0446	.0436	.0427	.0418	.0409	.0401	.0392	.0384	.0375	.0367
-1.6	.0548	.0537	.0526	.0516	.0505	.0495	.0485	.0472	.0465	.0455
-1.5	.0668	.0655	.0643	.0630	.0618	.0606	.0594	.0582	.0571	.0559
-1.4	.0808	.0793	.0778	.0764	.0749	.0735	.0722	.0708	.0694	.0681
-1.3	.0968	.0951	.0934	.0918	.0901	.0885	.0869	.0853	.0838	.0823
-1.2	.1151	.1131	.1112	.1093	.1075	.1056	.1038	.1020	.1003	.0985
-1.1	.1357	.1335	.1314	.1292	.1271	.1251	.1230	.1210	.1190	.1170
-1.0	.1587	.1562	.1539	.1515	.1492	.1469	.1446	.1423	.1401	.1379
-0.9	.1841	.1814	.1788	.1762	.1736	.1711	.1685	.1660	.1635	.1611
-0.8	.2119	.2090	.2061	.2033	.2005	.1977	.1949	.1922	.1894	.1867
-0.7	.2420	.2389	.2358	.2327	.2293	.2266	.2236	.2206	.2177	.2148
-0.6	.2743	.2709	.2676	.2643	.2611	.2578	.2546	.2514	.2483	.2451
-0.5	.3085	.3050	.3015	.2981	.2946	.2912	.2877	.2843	.2810	.2776
-0.4	.3446	.3409	.3372	.3336	.3300	.3264	.3228	.3192	.3156	.3121
-0.3	.3821	.3783	.3745	.3707	.3669	.3632	.3594	.3557	.3520	.3483
-0.2	.4207	.4168	.4129	.4090	.4052	.4013	.3974	.3936	.3897	.3859
-0.1	.4602	.4562	.4522	.4483	.4443	.4404	.4364	.4325	.4286	.4247
-0.0	.5000	.4960	.4920	.4880	.4840	.4801	.4761	.4721	.4681	.4641

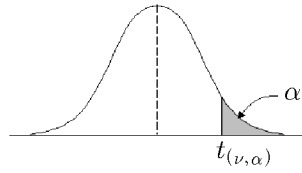
부록 1. 표준정규분포표 (계속)

$$\Phi(z) = P(Z \leq z) = \int_{-\infty}^z \frac{1}{\sqrt{2\pi}} e^{-u^2/2} du$$



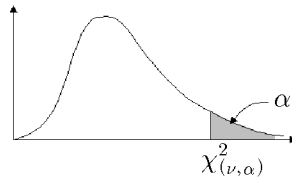
z	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09
0.0	0.5000	0.5040	0.5080	0.5120	0.5160	0.5199	0.5239	0.5279	0.5319	0.5359
0.1	0.5398	0.5438	0.5478	0.5517	0.5557	0.5596	0.5636	0.5675	0.5714	0.5754
0.2	0.5793	0.5832	0.5871	0.5910	0.5948	0.5987	0.6026	0.6064	0.6103	0.6141
0.3	0.6179	0.6217	0.6255	0.6293	0.6331	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	0.7258	0.7291	0.7324	0.7357	0.7389	0.7422	0.7454	0.7486	0.7518	0.7549
0.7	0.7580	0.7612	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	0.7996	0.8023	0.8051	0.8079	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	0.9430	0.9441
1.6	0.9452	0.9463	0.9474	0.9485	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	0.9700	0.9706
1.9	0.9713	0.9719	0.9726	0.9732	0.9738	0.9744	0.9750	0.9756	0.9762	0.9767
2.0	0.9773	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	0.9865	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	0.9980	0.9980	0.9981
2.9	0.9981	0.9982	0.9983	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	0.9996	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	0.9998	0.9998

부록 2. t 분포표



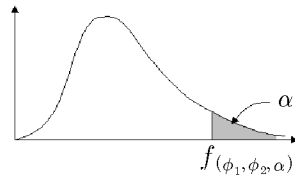
$\alpha \backslash \nu$	0.4	0.3	0.2	0.1	0.05	0.025	0.01	0.005
1	0.325	0.727	1.376	3.078	6.314	12.706	31.821	63.657
2	0.289	0.617	1.061	1.886	2.920	4.303	6.965	9.925
3	0.277	0.584	0.979	1.638	2.353	3.182	4.541	5.841
4	0.271	0.569	0.941	1.533	2.132	2.776	3.747	4.604
5	0.267	0.559	0.920	1.476	2.015	2.571	3.365	4.032
6	0.265	0.553	0.906	1.440	1.943	2.447	3.143	3.707
7	0.263	0.549	0.896	1.415	1.895	2.365	2.998	3.499
8	0.262	0.546	0.889	1.397	1.860	2.306	2.896	3.355
9	0.261	0.543	0.883	1.383	1.833	2.262	2.821	3.250
10	0.260	0.542	0.879	1.372	1.812	2.228	2.764	3.169
11	0.260	0.540	0.876	1.363	1.796	2.201	2.718	3.106
12	0.259	0.539	0.873	1.356	1.782	2.179	2.681	3.055
13	0.259	0.538	0.870	1.350	1.771	2.160	2.650	3.012
14	0.258	0.537	0.868	1.345	1.761	2.145	2.624	2.977
15	0.258	0.536	0.866	1.341	1.753	2.131	2.602	2.947
16	0.258	0.535	0.865	1.337	1.746	2.120	2.583	2.921
17	0.257	0.534	0.863	1.333	1.740	2.110	2.567	2.898
18	0.257	0.534	0.862	1.330	1.734	2.101	2.552	2.878
19	0.257	0.533	0.861	1.328	1.729	2.093	2.539	2.861
20	0.257	0.533	0.860	1.325	1.725	2.086	2.528	2.845
21	0.257	0.532	0.859	1.323	1.721	2.080	2.518	2.831
22	0.256	0.532	0.858	1.321	1.717	2.074	2.508	2.819
23	0.256	0.532	0.858	1.319	1.714	2.069	2.500	2.807
24	0.256	0.531	0.857	1.318	1.711	2.064	2.492	2.797
25	0.256	0.531	0.856	1.316	1.708	2.060	2.485	2.787
26	0.256	0.531	0.856	1.315	1.706	2.056	2.479	2.779
27	0.256	0.531	0.855	1.314	1.703	2.052	2.473	2.771
28	0.256	0.530	0.855	1.313	1.701	2.048	2.467	2.763
29	0.256	0.530	0.854	1.311	1.699	2.045	2.462	2.756
30	0.256	0.530	0.854	1.310	1.697	2.042	2.457	2.750
40	0.255	0.529	0.851	1.303	1.684	2.021	2.423	2.704
60	0.254	0.527	0.848	1.296	1.671	2.000	2.390	2.660
120	0.254	0.526	0.845	1.289	1.658	1.980	2.358	2.617
∞	0.253	0.524	0.842	1.282	1.645	1.960	2.326	2.576

부록 3. 카이제곱 분포표



$\alpha \backslash \nu$	0.995	0.99	0.975	0.95	0.9	0.5	0.1	0.05	0.025	0.01	0.005
1	.00+	.00+	.00+	.00+	.02	.45	2.71	3.84	5.02	6.63	7.88
2	.01	.02	.05	.10	.21	1.39	6.61	5.99	7.38	9.21	10.60
3	.07	.11	.22	.35	.58	2.37	6.25	7.81	9.35	11.34	12.84
4	.21	.30	.48	.71	1.06	3.36	7.78	9.49	11.14	13.28	14.86
5	.41	.55	.83	1.15	1.61	4.35	9.24	11.07	12.82	15.09	16.75
6	.68	.87	1.24	1.64	2.20	5.35	10.65	12.59	14.45	16.81	18.55
7	.99	1.24	1.69	2.17	2.83	6.35	12.02	14.07	16.01	18.48	20.28
8	1.34	1.65	2.18	2.73	3.49	7.34	13.36	15.51	17.53	20.09	21.96
9	1.73	2.09	2.70	3.33	4.17	8.34	14.68	16.92	19.02	21.67	23.59
10	2.16	2.56	3.25	3.94	4.87	9.34	15.99	18.31	20.48	23.21	25.19
11	2.60	3.05	3.82	4.57	5.58	10.34	17.28	19.68	21.92	24.72	26.76
12	3.07	3.57	4.40	5.23	6.30	11.34	18.55	21.03	23.34	26.22	28.30
13	3.57	4.11	5.01	5.89	7.04	12.34	19.81	22.36	24.74	27.69	29.82
14	4.07	4.66	5.63	6.57	7.79	13.34	21.06	23.68	26.12	29.14	31.32
15	4.60	5.23	6.27	7.26	8.55	14.34	22.31	25.00	27.49	30.58	32.80
16	5.14	5.81	6.91	7.96	9.31	15.34	23.54	26.30	28.85	32.00	34.27
17	5.70	6.41	7.56	8.67	10.09	16.34	24.77	27.59	30.19	33.41	35.72
18	6.26	7.01	8.23	9.39	10.87	17.34	25.99	28.87	31.53	34.81	37.16
19	6.84	7.63	8.91	10.12	11.65	18.34	27.20	30.14	32.85	36.19	38.58
20	7.43	8.26	9.59	10.85	12.44	19.34	28.41	31.41	34.18	37.57	40.00
21	8.03	8.90	10.28	11.59	13.24	20.34	29.62	32.67	35.48	38.93	41.40
22	8.64	9.54	10.98	12.34	14.04	21.34	30.81	33.92	36.78	40.29	42.80
23	9.26	10.20	11.69	13.09	14.85	22.34	32.01	35.17	38.08	41.64	44.18
24	9.89	10.86	12.40	13.85	15.66	23.34	33.20	36.42	39.36	42.98	45.56
25	10.52	11.52	13.12	14.61	16.47	24.34	34.28	37.65	40.65	44.31	46.93
26	11.16	12.20	13.84	15.38	17.29	25.34	35.56	38.89	41.92	45.64	48.29
27	411.81	12.88	14.57	16.15	18.11	26.34	36.74	40.11	43.19	46.96	49.65
28	12.46	13.57	15.31	16.93	18.94	27.34	37.92	41.34	44.46	48.28	50.99
29	13.12	14.26	16.05	17.71	19.77	28.34	39.09	42.56	45.72	49.59	52.34
30	13.79	14.95	16.79	18.49	20.60	29.34	40.26	43.77	46.98	50.89	53.67
40	20.71	22.16	24.43	26.51	29.05	39.34	51.81	55.76	59.34	63.69	66.77
50	27.99	29.71	32.36	34.76	37.69	49.33	63.17	67.50	71.42	76.15	79.49
60	35.53	37.48	40.48	43.19	46.46	59.33	74.40	79.08	83.30	88.38	91.95
70	43.28	54.44	48.76	51.74	55.33	69.33	85.53	90.53	95.02	100.42	104.22
80	51.17	53.54	57.15	60.39	64.28	79.33	96.58	101.88	106.63	112.33	116.32
90	59.20	61.75	65.65	69.13	73.29	89.33	107.57	113.14	118.14	124.12	128.30
100	67.33	70.06	74.22	77.93	82.36	99.33	118.50	124.34	129.56	135.81	140.17

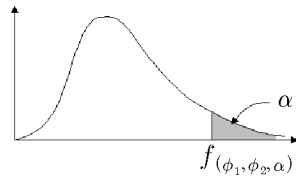
부록 4. F 분포표



($\alpha = 0.1$)

$\phi_2 \backslash \phi_1$	1	2	3	4	5	6	7	8	9	10	12	15	20	24	30	40	60	120	∞
1	39.9	49.5	53.6	55.8	57.2	58.2	58.9	59.4	59.9	60.2	60.7	61.2	61.7	62.0	62.3	62.5	62.8	63.1	63.3
2	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	9.48	9.49
3	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	5.18	5.17	5.16	5.15	5.14	5.13
4	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	3.79	3.78	3.76
5	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	3.14	3.12	3.11
6	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	2.82	2.80	2.78	2.76	2.74	2.72
7	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	2.58	2.56	2.54	2.51	2.49	2.47
8	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	2.34	2.32	2.29
9	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	2.28	2.25	2.23	2.21	2.18	2.16
10	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	2.18	2.16	2.13	2.11	2.08	2.06
11	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	2.03	2.00	1.97
12	3.18	2.81	2.61	2.48	2.39	2.33	2.28	2.24	2.21	2.19	2.15	2.10	2.06	2.04	2.01	1.99	1.96	1.93	1.90
13	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	1.90	1.88	1.85
14	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	1.94	1.91	1.89	1.86	1.83	1.80
15	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	1.90	1.87	1.85	1.82	1.79	1.76
16	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	1.87	1.84	1.81	1.78	1.75	1.72
17	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	1.84	1.81	1.78	1.75	1.72	1.69
18	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	1.81	1.78	1.75	1.72	1.69	1.66
19	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	1.79	1.76	1.73	1.70	1.67	1.63
20	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	1.77	1.74	1.71	1.68	1.64	1.61
21	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	1.75	1.72	1.69	1.66	1.62	1.59
22	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	1.64	1.60	1.57
23	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	1.72	1.69	1.66	1.62	1.59	1.55
24	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	1.61	1.57	1.53
25	2.92	2.53	2.32	2.18	2.09	2.02	1.97	1.93	1.89	1.87	1.82	1.77	1.72	1.69	1.66	1.63	1.59	1.56	1.52
26	2.91	2.52	2.31	2.17	2.08	2.01	1.96	1.92	1.88	1.86	1.81	1.76	1.71	1.68	1.65	1.61	1.58	1.54	1.50
27	2.90	2.51	2.30	2.17	2.07	2.00	1.95	1.91	1.87	1.85	1.80	1.75	1.70	1.67	1.64	1.60	1.57	1.53	1.49
28	2.89	2.50	2.29	2.16	2.06	2.00	1.94	1.90	1.87	1.84	1.79	1.74	1.69	1.66	1.63	1.59	1.56	1.52	1.48
29	2.89	2.50	2.28	2.15	2.06	1.99	1.93	1.89	1.86	1.83	1.78	1.73	1.68	1.65	1.62	1.58	1.55	1.51	1.47
30	2.88	2.49	2.28	2.14	2.05	1.98	1.93	1.88	1.85	1.82	1.77	1.72	1.67	1.64	1.61	1.57	1.54	1.50	1.46
40	2.84	2.44	2.23	2.09	2.00	1.93	1.87	1.83	1.79	1.76	1.71	1.66	1.61	1.57	1.54	1.51	1.47	1.42	1.38
60	2.79	2.39	2.18	2.04	1.95	1.87	1.82	1.77	1.74	1.71	1.66	1.60	1.54	1.51	1.48	1.44	1.40	1.35	1.29
120	2.75	2.35	2.13	1.99	1.90	1.82	1.77	1.72	1.68	1.65	1.60	1.55	1.48	1.45	1.41	1.37	1.32	1.26	1.19
∞	2.71	2.30	2.08	1.94	1.85	1.77	1.72	1.67	1.63	1.60	1.55	1.49	1.42	1.38	1.34	1.30	1.24	1.17	1.00

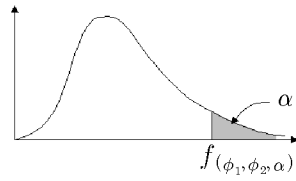
부록 4. F 분포표 (계속)



($\alpha = 0.05$)

$\phi_2 \backslash \phi_1$	1	2	3	4	5	6	7	8	9	10	12	15	20	24	30	40	60	120	∞
1	161.45	199.50	215.71	224.58	230.16	233.99	236.77	238.88	240.54	241.8	243.91	245.95	248.01	249.05	250.10	251.14	252.20	253.25	254.30
2	18.51	19.00	19.16	19.25	19.30	19.33	19.35	19.37	19.39	19.40	19.41	19.43	19.45	19.45	19.46	19.47	19.48	19.49	19.50
3	10.13	9.55	9.28	9.12	9.01	8.94	8.89	8.85	8.81	8.79	8.75	8.70	8.66	8.64	8.62	8.59	8.57	8.55	8.53
4	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	5.69	5.66	5.63
5	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	4.53	4.50	4.46	4.43	4.40	4.36
6	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	3.84	3.81	3.77	3.74	3.70	3.67
7	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	3.41	3.38	3.34	3.30	3.27	3.23
8	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	3.12	3.08	3.04	3.01	2.97	2.93
9	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	2.90	2.86	2.83	2.79	2.75	2.71
10	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	2.74	2.70	2.66	2.62	2.58	2.54
11	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	2.61	2.57	2.53	2.49	2.45	2.40
12	4.75	3.89	3.49	3.26	3.11	3.00	2.91	2.85	2.80	2.75	2.69	2.62	2.54	2.51	2.47	2.43	2.38	2.34	2.30
13	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	2.42	2.38	2.34	2.30	2.25	2.21
14	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	2.35	2.31	2.27	2.22	2.18	2.13
15	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	2.29	2.25	2.20	2.16	2.11	2.07
16	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	2.24	2.19	2.15	2.11	2.06	2.01
17	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	2.19	2.15	2.10	2.06	2.01	1.96
18	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	2.15	2.11	2.06	2.02	1.97	1.92
19	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	1.98	1.93	1.88
20	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	2.08	2.04	1.99	1.95	1.90	1.84
21	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	1.92	1.87	1.81
22	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	2.03	1.98	1.94	1.89	1.84	1.78
23	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	2.01	1.96	1.91	1.86	1.81	1.76
24	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	1.98	1.94	1.89	1.84	1.79	1.73
25	4.24	3.39	2.99	2.76	2.60	2.49	2.40	2.34	2.28	2.24	2.16	2.09	2.01	1.96	1.92	1.87	1.82	1.77	1.71
26	4.23	3.37	2.98	2.74	2.59	2.47	2.39	2.32	2.27	2.22	2.15	2.07	1.99	1.95	1.90	1.85	1.80	1.75	1.69
27	4.21	3.35	2.96	2.73	2.57	2.46	2.37	2.31	2.25	2.20	2.13	2.06	1.97	1.93	1.88	1.84	1.79	1.73	1.67
28	4.20	3.34	2.95	2.71	2.56	2.45	2.36	2.29	2.24	2.19	2.12	2.04	1.96	1.91	1.87	1.82	1.77	1.71	1.65
29	4.18	3.33	2.93	2.70	2.55	2.43	2.35	2.28	2.22	2.18	2.10	2.03	1.94	1.90	1.85	1.81	1.75	1.70	1.64
30	4.17	3.32	2.92	2.69	2.53	2.42	2.33	2.27	2.21	2.16	2.09	2.01	1.93	1.89	1.84	1.79	1.74	1.68	1.62
40	4.08	3.23	2.84	2.61	2.45	2.34	2.25	2.18	2.12	2.08	2.00	1.92	1.84	1.79	1.74	1.69	1.64	1.58	1.51
60	4.00	3.15	2.76	2.53	2.37	2.25	2.17	2.10	2.04	1.99	1.92	1.84	1.75	1.70	1.65	1.59	1.53	1.47	1.39
120	3.92	3.07	2.68	2.45	2.29	2.18	2.09	2.02	1.96	1.91	1.83	1.75	1.66	1.61	1.55	1.50	1.43	1.35	1.25
∞	3.84	3.00	2.60	2.37	2.21	2.10	1.01	1.94	1.88	1.83	1.75	1.67	1.57	1.52	1.46	1.39	1.32	1.22	1.00

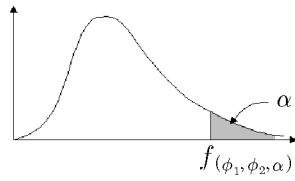
부록 4. F 분포표 (계속)



($\alpha = 0.025$)

$\phi_2 \backslash \phi_1$	1	2	3	4	5	6	7	8	9	10	12	15	20	24	30	40	60	120	∞
1	647.8	799.5	864.2	899.6	921.9	937.1	948.2	956.7	963.3	968.6	976.7	984.9	993.1	997.3	1001.4	1005.6	1009.8	1014.0	1018.3
2	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	39.49	39.50
3	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	13.99	13.90	13.90
4	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	8.51	8.46	8.41	8.36	8.31	8.26
5	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	6.28	6.23	6.18	6.12	6.07	6.02
6	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	5.12	5.07	5.01	4.96	4.90	4.85
7	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	4.42	4.36	4.31	4.25	4.20	4.14
8	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	3.95	3.89	3.84	3.78	3.73	3.67
9	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	3.61	3.56	3.51	3.45	3.39	3.33
10	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	3.37	3.31	3.26	3.20	3.14	3.08
11	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	3.17	3.12	3.06	3.00	2.94	2.88
12	6.55	5.10	4.47	4.12	3.89	3.73	3.61	3.51	3.44	3.37	3.28	3.18	3.07	3.02	2.96	2.91	2.85	2.79	2.72
13	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	2.89	2.84	2.78	2.72	2.66	2.60
14	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	2.79	2.73	2.67	2.61	2.55	2.49
15	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	2.70	2.64	2.59	2.52	2.46	2.40
16	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	2.63	2.57	2.51	2.45	2.38	2.32
17	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	2.56	2.50	2.44	2.38	2.32	2.25
18	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	2.50	2.44	2.38	2.32	2.26	2.19
19	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	2.45	2.39	2.33	2.27	2.20	2.13
20	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	2.41	2.35	2.29	2.22	2.16	2.09
21	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	2.37	2.31	2.25	2.18	2.11	2.04
22	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	2.33	2.27	2.21	2.14	2.08	2.00
23	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	2.30	2.24	2.18	2.11	2.04	1.97
24	5.72	4.32	3.72	3.38	3.15	2.99	2.87	2.78	2.70	2.64	2.54	2.44	2.33	2.27	2.21	2.15	2.08	2.01	1.94
25	5.69	4.29	3.69	3.35	3.13	2.97	2.85	2.75	2.68	2.61	2.51	2.41	2.30	2.24	2.18	2.12	2.05	1.98	1.91
26	5.66	4.27	3.67	3.33	3.10	2.94	2.82	2.73	2.65	2.59	2.49	2.39	2.28	2.22	2.16	2.09	2.03	1.95	1.88
27	5.63	4.24	3.65	3.31	3.08	2.92	2.80	2.71	2.63	2.57	2.47	2.36	2.25	2.19	2.13	2.07	2.00	1.93	1.85
28	5.61	4.22	3.63	3.29	3.06	2.90	2.78	2.69	2.61	2.55	2.45	2.34	2.23	2.17	2.11	2.05	1.98	1.91	1.83
29	5.59	4.20	3.61	3.27	3.04	2.88	2.76	2.67	2.59	2.53	2.43	2.32	2.21	2.15	2.09	2.03	1.96	1.89	1.81
30	5.57	4.18	3.59	3.25	3.03	2.87	2.75	2.65	2.57	2.51	2.41	2.31	2.20	2.14	2.07	2.01	1.94	1.87	1.79
40	5.42	4.05	3.46	3.13	2.90	2.74	2.62	2.53	2.45	2.39	2.29	2.18	2.07	2.01	1.94	1.88	1.80	1.72	1.64
60	5.29	3.93	3.34	3.01	2.79	2.63	2.51	2.41	2.33	2.27	2.17	2.06	1.94	1.88	1.82	1.74	1.67	1.58	1.48
120	5.15	3.80	3.23	2.89	2.67	2.52	2.39	2.30	2.22	2.16	2.05	1.94	1.82	1.76	1.69	1.61	1.53	1.43	1.31
∞	5.02	3.69	3.12	2.79	2.57	2.41	2.29	2.19	2.11	2.05	1.94	1.83	1.71	1.64	1.57	1.48	1.39	1.27	1.00

부록 4. F 분포표 (계속)



($\alpha = 0.01$)

$\phi_2 \backslash \phi_1$	1	2	3	4	5	6	7	8	9	10	12	15	20	24	30	40	60	120	∞
1	4052.2	4999.5	5403.4	5624.6	5763.7	5859.0	5928.4	5981.1	6022.5	6055.9	6106.3	6157.3	6208.7	6234.6	6260.7	6286.8	6313.0	6339.4	6365.9
2	98.50	99.00	99.17	99.25	99.30	99.33	99.36	99.37	99.39	99.40	99.42	99.43	99.45	99.46	99.47	99.47	99.48	99.49	99.50
3	34.12	30.82	29.46	28.71	28.24	27.91	27.67	27.49	27.35	27.23	27.05	26.87	26.69	26.60	26.50	26.41	26.32	26.22	26.13
4	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	13.93	13.84	13.75	13.65	13.56	13.46
5	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	9.47	9.38	9.29	9.20	9.11	9.02
6	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	7.31	7.23	7.14	7.06	6.97	6.88
7	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	6.07	5.99	5.91	5.82	5.74	5.65
8	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	5.28	5.20	5.12	5.03	4.95	4.86
9	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	4.73	4.65	4.57	4.48	4.40	4.31
10	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	4.33	4.25	4.17	4.08	4.00	3.91
11	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	4.02	3.94	3.86	3.78	3.69	3.60
12	9.33	6.93	5.95	5.41	5.06	4.82	4.64	4.50	4.39	4.30	4.16	4.01	3.86	3.78	3.70	3.62	3.54	3.45	3.36
13	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	3.59	3.51	3.43	3.34	3.25	3.17
14	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	3.43	3.35	3.27	3.18	3.09	3.00
15	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	3.29	3.21	3.13	3.05	2.96	2.87
16	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	3.18	3.10	3.02	2.93	2.84	2.75
17	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	3.08	3.00	2.92	2.83	2.75	2.65
18	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	3.00	2.92	2.84	2.75	2.66	2.57
19	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	2.92	2.84	2.76	2.67	2.58	2.49
20	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	2.86	2.78	2.69	2.61	2.52	2.42
21	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	2.80	2.72	2.64	2.55	2.46	2.36
22	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	2.75	2.67	2.58	2.50	2.40	2.31
23	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	2.70	2.62	2.54	2.45	2.35	2.26
24	7.82	5.61	4.72	4.22	3.90	3.67	3.50	3.36	3.26	3.17	3.03	2.89	2.74	2.66	2.58	2.49	2.40	2.31	2.21
25	7.77	5.57	4.68	4.18	3.85	3.63	3.46	3.32	3.22	3.13	2.99	2.85	2.70	2.62	2.54	2.45	2.36	2.27	2.17
26	7.72	5.53	4.64	4.14	3.82	3.59	3.42	3.29	3.18	3.09	2.96	2.81	2.66	2.58	2.50	2.42	2.33	2.23	2.13
27	7.68	5.49	4.60	4.11	3.78	3.56	3.39	3.26	3.15	3.06	2.93	2.78	2.63	2.55	2.47	2.38	2.29	2.20	2.10
28	7.64	5.45	4.57	4.07	3.75	3.53	3.36	3.23	3.12	3.03	2.90	2.75	2.60	2.52	2.44	2.35	2.26	2.17	2.06
29	7.60	5.42	4.54	4.04	3.73	3.50	3.33	3.20	3.09	3.00	2.87	2.73	2.57	2.49	2.41	2.33	2.23	2.14	2.03
30	7.56	5.39	4.51	4.02	3.70	3.47	3.30	3.17	3.07	2.98	2.84	2.70	2.55	2.47	2.39	2.30	2.21	2.11	2.01
40	7.31	5.18	4.31	3.83	3.51	3.29	3.12	2.99	2.89	2.80	2.66	2.52	2.37	2.29	2.20	2.11	2.02	1.92	1.80
60	7.08	4.98	4.13	3.65	3.34	3.12	2.95	2.82	2.72	2.63	2.50	2.35	2.20	2.12	2.03	1.94	1.84	1.73	1.60
120	6.85	4.79	3.95	3.48	3.17	2.96	2.79	2.66	2.56	2.47	2.34	2.19	2.03	1.95	1.86	1.76	1.66	1.53	1.38
∞	6.63	4.61	3.78	3.32	3.02	2.80	2.64	2.51	2.41	2.32	2.18	2.04	1.88	1.79	1.70	1.59	1.47	1.32	1.00

부록 5. 관리도용 계수표

n	A	A_2	A_3	c_4	$1/c_4$	c_4'	B_3	B_4	B_5	B_6
2	2.1213	1.8806	2.6587	0.7979	1.2533	0.7978	0.0000	3.2665	0.0000	2.6063
3	1.7321	1.0231	1.9544	0.8862	1.1284	0.8715	0.0000	2.5682	0.0000	2.2760
4	1.5000	0.7285	1.6281	0.9213	1.0854	0.9058	0.0000	2.2660	0.0000	2.0877
5	1.3416	0.5768	1.4273	0.9400	1.0638	0.9252	0.0000	2.0890	0.0000	1.9636
6	1.2247	0.4833	1.2871	0.9515	1.0509	0.9379	0.0304	1.9696	0.0289	1.8742
7	1.1339	0.4193	1.1819	0.9594	1.0424	0.9468	0.1177	1.8823	0.1129	1.8058
8	1.0607	0.3726	1.0991	0.9650	1.0362	0.9901	0.1851	1.8149	0.1786	1.7514
9	1.0000	0.3367	1.0317	0.9693	1.0317	0.9587	0.2391	1.7609	0.2318	1.7068
10	0.9487	0.3082	0.9754	0.9727	1.0281	0.9628	0.2837	1.7163	0.2759	1.6694
11	0.9045	0.2851	0.9274	0.9754	1.0253	0.9662	0.3213	1.6787	0.3134	1.6373
12	0.8660	0.2658	0.8859	0.9776	1.0230	0.9690	0.3535	1.6465	0.3456	1.6095
13	0.8321	0.2494	0.8495	0.9794	1.0210	0.9713	0.3816	1.6184	0.3737	1.5851
14	0.8018	0.2353	0.8173	0.9810	1.0194	0.9734	0.4062	1.5938	0.3985	1.5634
15	0.7746	0.2231	0.7885	0.9823	1.0180	0.9751	0.4282	1.5718	0.4206	1.5440
16	0.7500	0.2123	0.7626	0.9835	1.0168	0.9767	0.4479	1.5521	0.4405	1.5265
17	0.7276	0.2028	0.7391	0.9845	1.0157	0.9780	0.4657	1.5343	0.4585	1.5106
18	0.7071	0.1943	0.7176	0.9854	1.0148	0.9792	0.4818	1.5182	0.4748	1.4960
19	0.6882	0.1866	0.6979	0.9862	1.0140	0.9803	0.4966	1.5034	0.4898	1.4826
20	0.6708	0.1796	0.6797	0.9869	1.0132	0.9813	0.5102	1.4898	0.5036	1.4703
21	0.6547	0.1733	0.6629	0.9876	1.0126	0.9822	0.5228	1.4772	0.5163	1.4589
22	0.6396	0.1675	0.6473	0.9882	1.0120	0.9830	0.5344	1.4656	0.5281	1.4483
23	0.6255	0.1621	0.6327	0.9887	1.0114	0.9837	0.5452	1.4548	0.5391	1.4383
24	0.6124	0.1572	0.6191	0.9892	1.0109	0.9844	0.5553	1.4447	0.5493	1.4291
25	0.6000	0.1526	0.6063	0.9896	1.0105	0.9850	0.5648	1.4352	0.5589	1.4203
26	0.5883	0.1484	0.5943	0.9901	1.0100	0.9856	0.5737	1.4263	0.5680	1.4121
27	0.5774	0.1444	0.5829	0.9904	1.0097	0.9861	0.5820	1.4180	0.5765	1.4044
28	0.5669	0.1408	0.5722	0.9908	1.0093	0.9866	0.5899	1.4101	0.5845	1.3971
29	0.5571	0.1373	0.5621	0.9911	1.0090	0.9871	0.5974	1.4026	0.5920	1.3902
30	0.5477	0.1340	0.5525	0.9914	1.0087	0.9875	0.6044	1.3956	0.5992	1.3836
31	0.5388	0.1310	0.5433	0.9917	1.0084	0.9879	0.6111	1.3889	0.6060	1.3774
32	0.5303	0.1281	0.5346	0.9920	1.0081	0.9883	0.6175	1.3825	0.6125	1.3714
33	0.5222	0.1254	0.5263	0.9922	1.0078	0.9886	0.6236	1.3764	0.6187	1.3657
34	0.5145	0.1228	0.5184	0.9925	1.0076	0.9889	0.6294	1.3706	0.6246	1.3603
35	0.5071	0.1204	0.5108	0.9927	1.0074	0.9892	0.6349	1.3651	0.6302	1.3551
36	0.5000	0.1180	0.5036	0.9929	1.0072	0.9895	0.6402	1.3598	0.6356	1.3502
37	0.4932	0.1158	0.4966	0.9931	1.0070	0.9898	0.6452	1.3548	0.6408	1.3454
38	0.4867	0.1137	0.4900	0.9933	1.0068	0.0000	0.6501	1.3499	0.6457	1.3408
39	0.4804	0.1117	0.4836	0.9934	1.0066	0.9903	0.6548	1.3452	0.6505	1.3364
40	0.4743	0.1098	0.4774	0.9936	1.0064	0.9906	0.6592	1.3408	0.6550	1.3322
41	0.4685	0.1079	0.4715	0.9938	1.0063	0.9908	0.6636	1.3364	0.6594	1.3281
42	0.4629	0.1061	0.4657	0.9939	1.0061	0.9910	0.6677	1.3323	0.6637	1.3242
43	0.4575	0.1045	0.4602	0.9941	1.0060	0.9912	0.6717	1.3283	0.6677	1.3204
44	0.4523	0.1028	0.4549	0.9942	1.0058	0.9914	0.6756	1.3244	0.6717	1.3167
45	0.4472	0.1013	0.4498	0.9943	1.0057	0.9916	0.6793	1.3207	0.6755	1.3132
46	0.4423	0.0998	0.4448	0.9945	1.0056	0.9918	0.6829	1.3171	0.6791	1.3098
47	0.4376	0.0984	0.4400	0.9946	1.0054	0.9920	0.6864	1.3136	0.6827	1.3065
48	0.4330	0.0970	0.4353	0.9947	1.0053	0.9921	0.6898	1.3102	0.6861	1.3033
49	0.4286	0.0956	0.4308	0.9948	1.0052	0.9923	0.6930	1.3070	0.6894	1.3002
50	0.4243	0.0943	0.4264	0.9949	1.0051	0.9924	0.6962	1.3038	0.6926	1.2972

부록 5. 관리도용 계수표 (계속)

n	A	A_2	A_3	c_4	$1/c_4$	c_4'	B_3	B_4	B_5	B_6
51	0.4201	0.0932	0.4222	0.9950	1.0050	0.9926	0.6993	1.3007	0.6958	1.2943
52	0.4160	0.0920	0.4181	0.9951	1.0049	0.9927	0.7022	1.2978	0.6988	1.2914
53	0.4121	0.0908	0.4141	0.9952	1.0048	0.9928	0.7051	1.2949	0.7017	1.2887
54	0.4082	0.0897	0.4102	0.9953	1.0047	0.9930	0.7079	1.2921	0.7046	1.2860
55	0.4045	0.0886	0.4064	0.9954	1.0046	0.9931	0.7107	1.2893	0.7074	1.2834
56	0.4009	0.0875	0.4027	0.9955	1.0046	0.9932	0.7133	1.2867	0.7101	1.2808
57	0.3974	0.0865	0.3991	0.9955	1.0045	0.9933	0.7159	1.2841	0.7127	1.2784
58	0.3939	0.0855	0.3957	0.9956	1.0044	0.9935	0.7184	1.2816	0.7153	1.2760
59	0.3906	0.0845	0.3923	0.9957	1.0043	0.9936	0.7209	1.2791	0.7178	1.2736
60	0.3873	0.0836	0.3889	0.9958	1.0042	0.9937	0.7232	1.2768	0.7202	1.2714
61	0.3841	0.0826	0.3857	0.9958	1.0042	0.9938	0.7256	1.2744	0.7226	1.2691
62	0.3810	0.0817	0.3826	0.9959	1.0041	0.9939	0.7278	1.2722	0.7249	1.2670
63	0.3780	0.0809	0.3795	0.9960	1.0040	0.9940	0.7301	1.2699	0.7271	1.2648
64	0.3750	0.0800	0.3765	0.9960	1.0040	0.9941	0.7322	1.2678	0.7293	1.2628
65	0.3721	0.0792	0.3736	0.9961	1.0039	0.9941	0.7343	1.2657	0.7315	1.2607
66	0.3693	0.0784	0.3707	0.9962	1.0039	0.9942	0.7364	1.2636	0.7336	1.2588
67	0.3665	0.0776	0.3679	0.9962	1.0038	0.9943	0.7384	1.2616	0.7356	1.2568
68	0.3638	0.0768	0.3652	0.9963	1.0037	0.9944	0.7404	1.2596	0.7376	1.2549
69	0.3612	0.0761	0.3625	0.9963	1.0037	0.9945	0.7423	1.2577	0.7396	1.2531
70	0.3586	0.0754	0.3599	0.9964	1.0036	0.9946	0.7442	1.2558	0.7415	1.2513
71	0.3560	0.0747	0.3573	0.9964	1.0036	0.9946	0.7460	1.2540	0.7433	1.2495
72	0.3536	0.0740	0.3548	0.9965	1.0035	0.9947	0.7478	1.2522	0.7452	1.2478
73	0.3511	0.0733	0.3523	0.9965	1.0035	0.9948	0.7496	1.2504	0.7470	1.2461
74	0.3487	0.0726	0.3499	0.9966	1.0034	0.9948	0.7513	1.2487	0.7487	1.2444
75	0.3464	0.0720	0.3476	0.9966	1.0034	0.9949	0.7530	1.2470	0.7504	1.2428
76	0.3441	0.0714	0.3453	0.9967	1.0033	0.9950	0.7546	1.2454	0.7521	1.2412
77	0.3419	0.0708	0.3430	0.9967	1.0033	0.9950	0.7563	1.2437	0.7538	1.2396
78	0.3397	0.0702	0.3408	0.9968	1.0033	0.9951	0.7579	1.2421	0.7554	1.2381
79	0.3375	0.0696	0.3386	0.9968	1.0032	0.9952	0.7594	1.2406	0.7570	1.2366
80	0.3354	0.0690	0.3365	0.9968	1.0032	0.9952	0.7610	1.2390	0.7586	1.2351
81	0.3333	0.0685	0.3344	0.9969	1.0031	0.9953	0.7625	1.2375	0.7601	1.2337
82	0.3313	0.0679	0.3323	0.9969	1.0031	0.9953	0.7639	1.2361	0.7616	1.2323
83	0.3293	0.0674	0.3303	0.9970	1.0031	0.9954	0.7654	1.2346	0.7631	1.2309
84	0.3273	0.0669	0.3283	0.9970	1.0030	0.9954	0.7668	1.2332	0.7645	1.2295
85	0.3254	0.0664	0.3264	0.9970	1.0030	0.9955	0.7682	1.2318	0.7659	1.2281
86	0.3235	0.0659	0.3245	0.9971	1.0029	0.9955	0.7696	1.2304	0.7673	1.2268
87	0.3216	0.0654	0.3226	0.9971	1.0029	0.9956	0.7709	1.2291	0.7687	1.2255
88	0.3198	0.0649	0.3207	0.9971	1.0029	0.9956	0.7722	1.2278	0.7700	1.2242
89	0.3180	0.0644	0.3189	0.9972	1.0028	0.9957	0.7735	1.2265	0.7714	1.2230
90	0.3162	0.0640	0.3171	0.9972	1.0028	0.9957	0.7748	1.2252	0.7727	1.2217
91	0.3145	0.0635	0.3154	0.9972	1.0028	0.9958	0.7761	1.2239	0.7739	1.2205
92	0.3128	0.0631	0.3136	0.9973	1.0028	0.9958	0.7773	1.2227	0.7752	1.2193
93	0.3111	0.0627	0.3119	0.9973	1.0027	0.9959	0.7785	1.2215	0.7764	1.2181
94	0.3094	0.0623	0.3103	0.9973	1.0027	0.9959	0.7797	1.2203	0.7776	1.2170
95	0.3078	0.0618	0.3086	0.9973	1.0027	0.9959	0.7809	1.2191	0.7788	1.2158
96	0.3062	0.0614	0.3070	0.9974	1.0026	0.9960	0.7821	1.2179	0.7800	1.2147
97	0.3046	0.0610	0.3054	0.9974	1.0026	0.9960	0.7832	1.2168	0.7812	1.2136
98	0.3030	0.0607	0.3038	0.9974	1.0026	0.9961	0.7843	1.2157	0.7823	1.2125
99	0.3015	0.0603	0.3023	0.9975	1.0026	0.9961	0.7854	1.2146	0.7834	1.2115
100	0.3000	0.0599	0.3008	0.9975	1.0025	0.9961	0.7865	1.2135	0.7845	1.2104

부록 5. 관리도용 계수표 (계속)

n	d_2	$1/d_2$	d_3	d_4	D_1	D_2	D_3	D_4	m_3	m_3A_2
2	1.1280	0.8865	0.8525	0.9540	0.0000	3.6855	0.0000	3.2673	0.9548	1.7956
3	1.6930	0.5907	0.8884	1.5880	0.0000	4.3582	0.0000	2.5742	1.1637	1.1905
4	2.0590	0.4857	0.8794	1.9780	0.0000	4.6972	0.0000	2.2813	1.0742	0.7826
5	2.3260	0.4299	0.8641	2.2570	0.0000	4.9183	0.0000	2.1145	1.1995	0.6919
6	2.5340	0.3946	0.8480	2.4720	0.0000	5.0780	0.0000	2.0039	1.1254	0.5439
7	2.7040	0.3698	0.8332	2.6450	0.2044	5.2036	0.0756	1.9244	1.2149	0.5095
8	2.8470	0.3512	0.8198	2.7910	0.3876	5.3064	0.1361	1.8639	1.1538	0.4299
9	2.9700	0.3367	0.8078	2.9150	0.5466	5.3934	0.1840	1.8160	1.2234	0.4119
10	3.0780	0.3249	0.7971	3.0240	0.6867	5.4693	0.2231	1.7769	1.1719	0.3612
11	3.1730	0.3152	0.7873	3.1210	0.8111	5.5349	0.2556	1.7444	1.2289	0.3503
12	3.2580	0.3069	0.7785	3.2070	0.9225	5.5935	0.2831	1.7169	1.1844	0.3148
13	3.3360	0.2998	0.7704	3.2850	1.0248	5.6472	0.3072	1.6928	1.2326	0.3074
14	3.4070	0.2935	0.7630	3.3560	1.1180	5.6960	0.3281	1.6719	1.1936	0.2809
15	3.4720	0.2880	0.7562	3.4220	1.2034	5.7406	0.3466	1.6534	1.2354	0.2756
16	3.5320	0.2831	0.7499	3.4820	1.2823	5.7817	0.3631	1.6369	1.2006	0.2549
17	3.5880	0.2787	0.7441	3.5380	1.3557	5.8203	0.3778	1.6222	1.2375	0.2509
18	3.6400	0.2747	0.7386	3.5910	1.4242	5.8558	0.3913	1.6087	1.2062	0.2343
19	3.6890	0.2711	0.7335	3.6400	1.4885	5.8895	0.4035	1.5965	1.2392	0.2312
20	3.7350	0.2677	0.7287	3.6860	1.5489	5.9211	0.4147	1.5853	1.2107	0.2174
21	3.7780	0.2647	0.7242	3.7300	1.6054	5.9506	0.4249	1.5751	1.2405	0.2150
22	3.8190	0.2618	0.7199	3.7710	1.6593	5.9787	0.4345	1.5655	1.2144	0.2034
23	3.8580	0.2592	0.7159	3.8110	1.7103	6.0057	0.4433	1.5567	1.2416	0.2013
24	3.8950	0.2567	0.7121	3.8470	1.7587	6.0313	0.4515	1.5485	1.2175	0.1914
25	3.9310	0.2544	0.7084	3.8830	1.8058	6.0562	0.4594	1.5406	1.2426	0.1897
26	3.9650	0.2522	0.7044	3.9204	1.8517	6.0783	0.4670	1.5330	1.2201	0.1811
27	3.9970	0.2502	0.7016	3.9495	1.8923	6.1017	0.4734	1.5266	1.2434	0.1796
28	4.0280	0.2483	0.6987	3.9780	1.9318	6.1242	0.4796	1.5204	1.2224	0.1721
29	4.0580	0.2464	0.6960	4.0059	1.9700	6.1460	0.4855	1.5145	1.2440	0.1708
30	4.0860	0.2447	0.6933	4.0330	2.0060	6.1660	0.4910	1.5090	1.2244	0.1641
31	4.1130	0.2431	0.6907	4.0595	2.0409	6.1851	0.4962	1.5038	1.2446	0.1631
32	4.1390	0.2416	0.6882	4.0854	2.0745	6.2035	0.5012	1.4988	1.2262	0.1571
33	4.1640	0.2402	0.6857	4.1107	2.1069	6.2211	0.5060	1.4940	1.2452	0.1562
34	4.1890	0.2387	0.6833	4.1353	2.1391	6.2389	0.5107	1.4893	1.2277	0.1508
35	4.2130	0.2374	0.6809	4.1594	2.1702	6.2558	0.5151	1.4849	1.2456	0.1499
36	4.2360	0.2361	0.6786	4.1829	2.2001	6.2719	0.5194	1.4806	1.2291	0.1451
37	4.2580	0.2349	0.6764	4.2057	2.2287	6.2873	0.5234	1.4766	1.2460	0.1443
38	4.2800	0.2336	0.6743	4.2280	2.2572	6.3028	0.5274	1.4726	1.2303	0.1399
39	4.3010	0.2325	0.6722	4.2498	2.2845	6.3175	0.5312	1.4688	1.2464	0.1392
40	4.3220	0.2314	0.6701	4.2710	2.3117	6.3323	0.5349	1.4651	1.2315	0.1352
41	4.3420	0.2303	0.6681	4.2917	2.3377	6.3463	0.5384	1.4616	1.2468	0.1345
42	4.3610	0.2293	0.6662	4.3118	2.3625	6.3595	0.5417	1.4583	1.2325	0.1308
43	4.3800	0.2283	0.6643	4.3315	2.3871	6.3729	0.5450	1.4550	1.2471	0.1303
44	4.3980	0.2274	0.6625	4.3506	2.4106	6.3854	0.5481	1.4519	1.2334	0.1268
45	4.4150	0.2265	0.6607	4.3693	2.4330	6.3970	0.5511	1.4489	1.2473	0.1263
46	4.4320	0.2256	0.6590	4.3875	2.4551	6.4089	0.5540	1.4460	1.2343	0.1232
47	4.4490	0.2248	0.6573	4.4052	2.4772	6.4208	0.5568	1.4432	1.2476	0.1227
48	4.4660	0.2239	0.6556	4.4224	2.4991	6.4329	0.5596	1.4404	1.2350	0.1197
49	4.4820	0.2231	0.6541	4.4393	2.5198	6.4442	0.5622	1.4378	1.2478	0.1193
50	4.4980	0.2223	0.6525	4.4556	2.5404	6.4556	0.5648	1.4352	1.2358	0.1166

부록 5. 관리도용 계수표 (계속)

n	d_2	$1/d_2$	d_3	d_4	D_1	D_2	D_3	D_4	m_3	m_3A_2
51	4.5075	0.2219	0.6510	4.4716	2.5544	6.4606	0.5667	1.4333	1.2480	0.1163
52	4.5224	0.2211	0.6496	4.4871	2.5737	6.4712	0.5691	1.4309	1.2364	0.1137
53	4.5371	0.2204	0.6482	4.5023	2.5926	6.4817	0.5714	1.4286	1.2482	0.1134
54	4.5516	0.2197	0.6468	4.5171	2.6112	6.4921	0.5737	1.4263	1.2370	0.1110
55	4.5659	0.2190	0.6455	4.5315	2.6295	6.5024	0.5759	1.4241	1.2484	0.1106
56	4.5800	0.2183	0.6442	4.5455	2.6474	6.5127	0.5780	1.4220	1.2376	0.1083
57	4.5940	0.2177	0.6430	4.5592	2.6651	6.5228	0.5801	1.4199	1.2486	0.1080
58	4.6077	0.2170	0.6418	4.5725	2.6824	6.5329	0.5822	1.4178	1.2381	0.1059
59	4.6212	0.2164	0.6406	4.5855	2.6995	6.5429	0.5841	1.4159	1.2488	0.1055
60	4.6345	0.2158	0.6394	4.5982	2.7162	6.5528	0.5861	1.4139	1.2386	0.1035
61	4.6476	0.2152	0.6383	4.6105	2.7326	6.5627	0.5880	1.4120	1.2489	0.1032
62	4.6606	0.2146	0.6373	4.6226	2.7488	6.5724	0.5898	1.4102	1.2391	0.1013
63	4.6733	0.2140	0.6362	4.6344	2.7646	6.5820	0.5916	1.4084	1.2490	0.1010
64	4.6859	0.2134	0.6352	4.6459	2.7802	6.5915	0.5933	1.4067	1.2395	0.0992
65	4.6982	0.2128	0.6342	4.6572	2.7955	6.6009	0.5950	1.4050	1.2492	0.0989
66	4.7103	0.2123	0.6333	4.6682	2.8105	6.6102	0.5967	1.4033	1.2399	0.0972
67	4.7223	0.2118	0.6323	4.6789	2.8252	6.6193	0.5983	1.4017	1.2493	0.0970
68	4.7340	0.2112	0.6314	4.6895	2.8397	6.6284	0.5998	1.4002	1.2403	0.0953
69	4.7456	0.2107	0.6306	4.6998	2.8539	6.6373	0.6014	1.3986	1.2494	0.0951
70	4.7570	0.2102	0.6297	4.7099	2.8678	6.6461	0.6029	1.3971	1.2407	0.0935
71	4.7681	0.2097	0.6289	4.7198	2.8815	6.6548	0.6043	1.3957	1.2495	0.0933
72	4.7791	0.2092	0.6281	4.7295	2.8949	6.6633	0.6057	1.3943	1.2410	0.0918
73	4.7899	0.2088	0.6273	4.7391	2.9080	6.6717	0.6071	1.3929	1.2496	0.0916
74	4.8004	0.2083	0.6265	4.7485	2.9209	6.6800	0.6085	1.3915	1.2414	0.0902
75	4.8108	0.2079	0.6258	4.7577	2.9336	6.6881	0.6098	1.3902	1.2497	0.0900
76	4.8210	0.2074	0.6250	4.7668	2.9459	6.6960	0.6111	1.3889	1.2417	0.0886
77	4.8310	0.2070	0.6243	4.7758	2.9581	6.7039	0.6123	1.3877	1.2498	0.0884
78	4.8408	0.2066	0.6236	4.7847	2.9700	6.7115	0.6135	1.3865	1.2420	0.0872
79	4.8504	0.2062	0.6229	4.7934	2.9817	6.7190	0.6147	1.3853	1.2499	0.0870
80	4.8598	0.2058	0.6222	4.8021	2.9931	6.7264	0.6159	1.3841	1.2423	0.0857
81	4.8690	0.2054	0.6215	4.8107	3.0044	6.7335	0.6170	1.3830	1.2500	0.0856
82	4.8780	0.2050	0.6209	4.8192	3.0154	6.7406	0.6182	1.3818	1.2425	0.0844
83	4.8868	0.2046	0.6202	4.8276	3.0261	6.7474	0.6192	1.3808	1.2501	0.0842
84	4.8954	0.2043	0.6196	4.8360	3.0367	6.7541	0.6203	1.3797	1.2428	0.0831
85	4.9038	0.2039	0.6189	4.8444	3.0470	6.7606	0.6214	1.3786	1.2501	0.0830
86	4.9120	0.2036	0.6183	4.8528	3.0571	6.7669	0.6224	1.3776	1.2430	0.0819
87	4.9200	0.2033	0.6177	4.8611	3.0671	6.7730	0.6234	1.3766	1.2502	0.0817
88	4.9278	0.2029	0.6170	4.8694	3.0768	6.7789	0.6244	1.3756	1.2433	0.0807
89	4.9355	0.2026	0.6164	4.8777	3.0863	6.7847	0.6253	1.3747	1.2503	0.0806
90	4.9429	0.2023	0.6158	4.8861	3.0956	6.7902	0.6263	1.3737	1.2435	0.0796
91	4.9501	0.2020	0.6151	4.8944	3.1047	6.7956	0.6272	1.3728	1.2504	0.0794
92	4.9572	0.2017	0.6145	4.9029	3.1136	6.8007	0.6281	1.3719	1.2437	0.0785
93	4.9640	0.2014	0.6139	4.9113	3.1224	6.8057	0.6290	1.3710	1.2504	0.0784
94	4.9707	0.2012	0.6132	4.9199	3.1309	6.8104	0.6299	1.3701	1.2439	0.0774
95	4.9771	0.2009	0.6126	4.9285	3.1393	6.8149	0.6308	1.3692	1.2505	0.0773
96	4.9834	0.2007	0.6120	4.9372	3.1475	6.8192	0.6316	1.3684	1.2441	0.0764
97	4.9894	0.2004	0.6113	4.9460	3.1555	6.8233	0.6324	1.3676	1.2505	0.0763
98	4.9953	0.2002	0.6106	4.9549	3.1634	6.8272	0.6333	1.3667	1.2443	0.0755
99	5.0009	0.2000	0.6100	4.9639	3.1711	6.8308	0.6341	1.3659	1.2506	0.0754
100	5.0064	0.1997	0.6093	4.9731	3.1786	6.8342	0.6349	1.3651	1.2444	0.0746

부록 6. Durbin-Watson 검정의 상한과 하한

5% 유의수준

(n : 총 데이터 수, p : 독립변수의 수, d_L : 하한, d_U : 상한)

n	$p=1$		$p=2$		$p=3$		$p=4$		$p=5$	
	d_L	d_U	d_L	d_U	d_L	d_U	d_L	d_U	d_L	d_U
15	1.08	1.36	0.95	1.54	0.82	1.75	0.69	1.97	1.56	2.21
16	1.10	1.37	0.98	1.54	0.86	1.73	0.74	1.93	0.62	2.15
17	1.13	1.38	1.02	1.54	0.90	1.71	0.78	1.90	0.67	2.10
18	1.16	1.39	1.05	1.53	0.93	1.69	0.82	1.87	0.71	2.06
19	1.18	1.40	1.08	1.53	0.97	1.68	0.86	1.85	0.75	2.02
20	1.20	1.41	1.10	1.54	1.00	1.68	0.90	1.83	0.79	1.99
21	1.22	1.42	1.13	1.54	1.03	1.67	0.93	1.84	0.83	1.96
22	1.24	1.43	1.15	1.54	1.05	1.66	0.96	1.80	0.86	1.94
23	1.26	1.44	1.17	1.54	1.08	1.66	0.99	1.79	0.90	1.92
24	1.27	1.45	1.19	1.55	1.10	1.66	1.01	1.78	0.93	1.90
25	1.29	1.45	1.21	1.55	1.12	1.66	1.04	1.77	0.95	1.89
26	1.30	1.46	1.22	1.55	1.14	1.65	1.06	1.76	0.98	1.88
27	1.32	1.47	1.24	1.56	1.16	1.65	1.08	1.76	1.01	1.86
28	1.33	1.48	1.26	1.56	1.18	1.65	1.10	1.75	1.03	1.85
29	1.34	1.48	1.27	1.56	1.20	1.65	1.12	1.74	1.05	1.84
30	1.35	1.49	1.28	1.57	1.21	1.65	1.14	1.74	1.07	1.83
31	1.36	1.50	1.30	1.57	1.23	1.65	1.16	1.74	1.09	1.83
32	1.37	1.50	1.31	1.57	1.24	1.65	1.18	1.73	1.11	1.82
33	1.38	1.51	1.32	1.58	1.26	1.65	1.19	1.73	1.13	1.81
34	1.39	1.51	1.33	1.58	1.27	1.65	1.21	1.73	1.15	1.81
35	1.40	1.52	1.34	1.58	1.28	1.65	1.22	1.73	1.16	1.80
36	1.41	1.52	1.35	1.59	1.29	1.65	1.24	1.73	1.18	1.80
37	1.42	1.53	1.36	1.59	1.31	1.66	1.25	1.72	1.19	1.80
38	1.43	1.54	1.37	1.59	1.32	1.66	1.26	1.72	1.21	1.79
39	1.43	1.54	1.38	1.60	1.33	1.66	1.27	1.72	1.22	1.79
40	1.44	1.54	1.39	1.60	1.34	1.66	1.29	1.72	1.23	1.79
45	1.48	1.57	1.43	1.62	1.38	1.67	1.34	1.72	1.29	1.78
50	1.50	1.59	1.46	1.63	1.42	1.67	1.38	1.72	1.34	1.77
55	1.53	1.60	1.49	1.64	1.45	1.68	1.41	1.72	1.38	1.77
60	1.55	1.62	1.51	1.65	1.48	1.69	1.44	1.73	1.41	1.77
65	1.57	1.63	1.54	1.66	1.50	1.70	1.47	1.73	1.44	1.77
70	1.58	1.64	1.55	1.67	1.52	1.70	1.49	1.74	1.46	1.77
75	1.60	1.65	1.57	1.68	1.54	1.71	1.51	1.74	1.49	1.77
80	1.61	1.66	1.59	1.69	1.56	1.72	1.53	1.74	1.51	1.77
85	1.62	1.67	1.60	1.70	1.56	1.72	1.55	1.75	1.52	1.77
90	1.63	1.68	1.64	1.70	1.59	1.73	1.57	1.75	1.54	1.78
95	1.64	1.69	1.62	1.71	1.60	1.73	1.58	1.75	1.56	1.78
100	1.65	1.69	1.63	1.72	1.61	1.74	1.59	1.76	1.57	1.78

부록 6. Durbin-Watson 검정의 상한과 하한 (계속)

1% 유의수준

(n : 총 데이터 수, p : 독립변수의 수, d_L : 하한, d_U : 상한)

n	$p=1$		$p=2$		$p=3$		$p=4$		$p=5$	
	d_L	d_U	d_L	d_U	d_L	d_U	d_L	d_U	d_L	d_U
15	0.81	1.07	1.70	1.25	0.59	1.46	0.49	1.70	0.39	1.96
16	0.84	1.09	0.74	1.25	0.63	1.44	0.53	1.66	0.44	1.90
17	0.87	1.10	0.77	1.25	0.67	1.43	0.57	1.63	0.48	1.85
18	0.90	1.12	0.80	1.26	0.71	1.42	0.61	1.60	0.52	1.80
19	0.93	1.13	0.83	1.26	0.74	1.41	0.65	1.58	0.56	1.77
20	0.95	1.14	0.86	1.27	0.77	1.41	0.68	1.57	0.50	1.74
21	0.97	1.16	0.89	1.27	0.80	1.41	0.72	1.55	0.53	1.71
22	1.00	1.17	0.91	1.28	0.83	1.40	0.75	1.54	0.66	1.69
23	1.02	1.19	0.94	1.29	0.86	1.40	0.77	1.53	0.70	1.67
24	1.04	1.20	0.96	1.30	0.88	1.41	0.80	1.53	0.72	1.66
25	1.05	1.21	0.98	1.30	0.90	1.41	0.83	1.52	0.75	1.65
26	1.07	1.22	1.00	1.31	0.93	1.41	0.85	1.52	0.78	1.64
27	1.09	1.23	1.02	1.32	0.95	1.41	0.88	1.51	0.81	1.63
28	1.10	1.24	1.04	1.32	0.97	1.41	0.90	1.51	0.83	1.62
29	1.12	1.25	1.05	1.33	0.99	1.42	0.92	1.51	0.85	1.61
30	1.13	1.26	1.07	1.34	1.01	1.42	0.94	1.51	0.88	1.61
31	1.15	1.27	1.08	1.34	1.02	1.42	0.96	1.51	0.90	1.60
32	1.15	1.28	1.10	1.35	1.04	1.43	0.98	1.51	0.92	1.60
33	1.17	1.29	1.11	1.36	1.05	1.43	1.00	1.51	0.94	1.59
34	1.18	1.30	1.13	1.36	1.07	1.43	1.01	1.51	0.95	1.59
35	1.19	1.31	1.14	1.37	1.08	1.44	1.03	1.51	0.97	1.59
36	1.21	1.32	1.15	1.38	1.10	1.44	1.04	1.51	0.99	1.59
37	1.22	1.32	1.16	1.38	1.11	1.45	1.06	1.51	1.00	1.59
38	1.23	1.33	1.18	1.39	1.12	1.45	1.07	1.52	1.02	1.58
39	1.24	1.34	1.19	1.39	1.14	1.45	1.09	1.52	1.03	1.58
40	1.25	1.34	1.20	1.40	1.15	1.46	1.10	1.52	1.05	1.58
45	1.29	1.38	1.24	1.42	1.20	1.48	1.16	1.53	1.11	1.58
50	1.32	1.40	1.28	1.45	1.24	1.49	1.20	1.54	1.16	1.59
55	1.36	1.43	1.32	1.47	1.28	1.51	1.25	1.55	1.21	1.59
60	1.38	1.45	1.35	1.48	1.32	1.52	1.28	1.56	1.25	1.60
65	1.41	1.47	1.38	1.50	1.35	1.53	1.31	1.57	1.28	1.61
70	1.43	1.49	1.40	1.52	1.37	1.55	1.34	1.58	1.31	1.61
75	1.45	1.50	1.42	1.53	1.39	1.56	1.37	1.59	1.34	1.62
80	1.47	1.52	1.44	1.54	1.42	1.57	1.39	1.60	1.36	1.62
85	1.48	1.53	1.46	1.55	1.43	1.58	1.41	1.60	1.39	1.63
90	1.50	1.54	1.47	1.56	1.45	1.59	1.43	1.61	1.41	1.64
95	1.51	1.55	1.49	1.57	1.47	1.60	1.45	1.62	1.52	1.64
100	1.52	1.56	1.50	1.58	1.48	1.60	1.46	1.63	1.44	1.56