國立臺北科技大學112學年度碩士班招生考試

系所組別：4201、4202、4203、4204 經營管理系碩士班

第一節　統計學　試題

注意事項：

1.本試題共13題，共100分。
2.不必抄題，作答時請將試題題號及答案依照順序寫在答案卷上。
3.全部答案均須在答案卷之答案欄內作答，否則不予計分。

一、選擇題(單選題，每題5分，合計50分)

(一) In a management trainee program, 80% of the trainees are female, while 20% are male. 90% of the females attended college; 78% of the males attended college. A management trainee is selected at random. What is the probability that the person selected is a female who did NOT attend college?

(A) 0.2
(B) 0.08
(C) 0.25
(D) 0.8
(E) 0.1

(二) A sales person makes "cold calls" trying to sell a product by phone and is successful on each call with probability 1/50. Whether or not he is successful is independent from one call to the next. If he calls 50 people, the number of successful calls is:

(A) exactly 1, since he called 50 people and the probability of success is 1/50 each time.
(B) at most 1, because once he has been successful he can't be successful again in the 50 calls.
(C) a binomial random variable.
(D) equally likely to be 0, 1 or 2.
(E) none of the above

(三) A machine shop has 100 drill presses and other machines in constant use. The probability that a machine will become inoperative during a given day is 0.002. During some days, no machines are inoperative, but on other days, one, two, three, or more are broken down. What is the probability that fewer than two machines will be inoperative during a particular day?

(A) 0.02
(B) 0.1637
(C) 0.8187
(D) 0.9824
(E) 0.3827

(四) Some studies find an association between exercise and longevity. However, diet is a confounding variable. This means that:

(A) good diet causes longer life.
(B) people who exercise tend to eat healthy diets.
(C) exercise causes longevity and is associated with a good diet.
(D) a good diet increases lifespan and is associated with exercise.
(E) none of the above

(五) A sample of 150 new cell phones produced by Yeskia found that 12 had cosmetic flaws. A 90% confidence interval for the proportion of all new Yeskia phones with cosmetic flaws is 0.044 to 0.116. Which statement below provides the correct interpretation of this confidence interval?

(A) There is a 90% chance that the proportion of new phones that have cosmetic flaws is between 0.044 and 0.116.
(B) There is at least a 4.4% chance that a new phone will have a cosmetic flaw.
(C) A sample of 150 phones will have no more than 11.6% with cosmetic flaws.
(D) If you selected a very large number of samples and constructed a confidence interval for each, 90% of these intervals would include the proportion of all new phones with cosmetic flaws.
(E) none of the above

注意：背面尚有試題

(六) You are conducting a one-sided test of the null hypothesis that the population mean is 532 versus the alternative that the population mean is less than 532. If the sample mean is 529 and the p-value is 0.01, which of the following statements is true?

(A) There is a 0.01 probability that the population mean is smaller than 529.

(B) The probability of observing a sample mean smaller than 529 when the population mean is 532 is 0.01.

(C) There is a 0.01 probability that the population mean is smaller than 532.

(D) If the significance level is 0.05, you will accept the null hypothesis.

(E) none of the above

(七) A multiple regression model includes the term $(X_1)(X_2)$. If the hypothesis is that the term's regression coefficient is NOT rejected, what is a valid conclusion?

(A) The independent variables are correlated.

(B) There is only one independent variable in the regression model.

(C) The effect of X_1 on the dependent variable is independent of the value of X_2.

(D) The effect of X_1 on the dependent variable depends on the value of X_2.

(E) none of the above

(八) Which of the following statements are true?

(A) For continuous random variables, probabilities corresponding to areas under the density curve.

(B) A probability density function can not take on negative values.

(C) A probability density function can take on values greater than 1.

(D) all of the above

(E) none of the above

(九) Which of the following is not an assumption for one-way analysis of variance?

(A) The p populations of values of the response variable associated with the treatments have equal variances.

(B) The samples of experimental units associated with the treatments are randomly selected.

(C) The experimental units associated with the treatments are independent samples.

(D) The number of sampled observations must be equal for all p treatments.

(E) The distribution of the response variable is normal for all treatments.

(十) Many companies use well-known celebrities as spokespeople in their TV advertisements. A study was conducted to determine whether brand awareness of female TV viewers and the gender of the spokesperson are independent. Each in a sample of 300 female TV viewers was asked to identify a product advertised by a celebrity spokesperson. The gender of the spokesperson and whether or not the viewer could identify the product was recorded. The numbers in each category are given below.

	Male Celebrity	Female Celebrity
Identified product	41	61
Could not identify	109	89

Referring to these sample data, if the appropriate null hypothesis is tested using a significance level equal to .05, which of the following conclusions should be reached?

(A) There is a relationship between gender of the celebrity and product identification.

(B) There is no relationship between gender of the celebrity and product identification.

(C) The mean number of products identified for males is different than the mean number for females.

(D) Females have higher brand awareness than males.

(E) Males have higher brand awareness than females.

二、計算題（共三題，合計 50 分）

(一) A craps table at a local casino has been losing more money than normal. It seems that bets involving a one on the face of the dice (such as "snake eyes") are appearing more than usual. The casino manager thinks that the dice have been weighted to cause the side with one to have a higher probability of occurring than a fair dice. The casino manager takes one of the dice from the table and flips it 100 times, the side with a value of one appears 22 times.

(1) Construct a 95% confidence interval for the true probability of getting a one with this die. (10 分)

(2) Based on the casino manager's experiment, does the die appear to be unfair? Why? (5 分)

(二) Suppose you pay $2 to play a game of chance, in which you toss a coin and roll a die. You are paid $10 if your coin shows a tail and you roll at least a five on the die.

(1) Over the long term, what is your expected profit per game? (10 分)

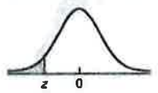
(2) If you played this game 100 times, how much would you expect to win /loose? (10 分)

(三) The number of hours worked per week by medical residents is normally distributed with a standard deviation of 4.8 hours. We want to test the claim that the mean number of hours worked per week by medical residents is more than 60 hours. Based on a sample of 36 medical residents, what is the largest value of the sample mean for which we would fail to reject the null hypothesis at a 5% significance level. (15 分)

注意：背面尚有參考資料

附表1

Areas under the standard normal curve

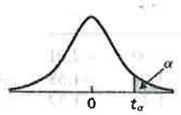


Second decimal place in z										
0.09	*0.08*	*0.07*	*0.06*	*0.05*	*0.04*	*0.03*	*0.02*	*0.01*	*0.00*	*z*
									0.0000†	*−3.9*
0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	*−3.8*
0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	*−3.7*
0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	*−3.6*
0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	*−3.5*
0.0002	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	*−3.4*
0.0003	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0005	0.0005	0.0005	*−3.3*
0.0005	0.0005	0.0005	0.0006	0.0006	0.0006	0.0006	0.0006	0.0007	0.0007	*−3.2*
0.0007	0.0007	0.0008	0.0008	0.0008	0.0008	0.0009	0.0009	0.0009	0.0010	*−3.1*
0.0010	0.0010	0.0011	0.0011	0.0011	0.0012	0.0012	0.0013	0.0013	0.0013	*−3.0*
0.0014	0.0014	0.0015	0.0015	0.0016	0.0016	0.0017	0.0018	0.0018	0.0019	*−2.9*
0.0019	0.0020	0.0021	0.0021	0.0022	0.0023	0.0023	0.0024	0.0025	0.0026	*−2.8*
0.0026	0.0027	0.0028	0.0029	0.0030	0.0031	0.0032	0.0033	0.0034	0.0035	*−2.7*
0.0036	0.0037	0.0038	0.0039	0.0040	0.0041	0.0043	0.0044	0.0045	0.0047	*−2.6*
0.0048	0.0049	0.0051	0.0052	0.0054	0.0055	0.0057	0.0059	0.0060	0.0062	*−2.5*
0.0064	0.0066	0.0068	0.0069	0.0071	0.0073	0.0075	0.0078	0.0080	0.0082	*−2.4*
0.0084	0.0087	0.0089	0.0091	0.0094	0.0096	0.0099	0.0102	0.0104	0.0107	*−2.3*
0.0110	0.0113	0.0116	0.0119	0.0122	0.0125	0.0129	0.0132	0.0136	0.0139	*−2.2*
0.0143	0.0146	0.0150	0.0154	0.0158	0.0162	0.0166	0.0170	0.0174	0.0179	*−2.1*
0.0183	0.0188	0.0192	0.0197	0.0202	0.0207	0.0212	0.0217	0.0222	0.0228	*−2.0*
0.0233	0.0239	0.0244	0.0250	0.0256	0.0262	0.0268	0.0274	0.0281	0.0287	*−1.9*
0.0294	0.0301	0.0307	0.0314	0.0322	0.0329	0.0336	0.0344	0.0351	0.0359	*−1.8*
0.0367	0.0375	0.0384	0.0392	0.0401	0.0409	0.0418	0.0427	0.0436	0.0446	*−1.7*
0.0455	0.0465	0.0475	0.0485	0.0495	0.0505	0.0516	0.0526	0.0537	0.0548	*−1.6*
0.0559	0.0571	0.0582	0.0594	0.0606	0.0618	0.0630	0.0643	0.0655	0.0668	*−1.5*
0.0681	0.0694	0.0708	0.0721	0.0735	0.0749	0.0764	0.0778	0.0793	0.0808	*−1.4*
0.0823	0.0838	0.0853	0.0869	0.0885	0.0901	0.0918	0.0934	0.0951	0.0968	*−1.3*
0.0985	0.1003	0.1020	0.1038	0.1056	0.1075	0.1093	0.1112	0.1131	0.1151	*−1.2*
0.1170	0.1190	0.1210	0.1230	0.1251	0.1271	0.1292	0.1314	0.1335	0.1357	*−1.1*
0.1379	0.1401	0.1423	0.1446	0.1469	0.1492	0.1515	0.1539	0.1562	0.1587	*−1.0*
0.1611	0.1635	0.1660	0.1685	0.1711	0.1736	0.1762	0.1788	0.1814	0.1841	*−0.9*
0.1867	0.1894	0.1922	0.1949	0.1977	0.2005	0.2033	0.2061	0.2090	0.2119	*−0.8*
0.2148	0.2177	0.2206	0.2236	0.2266	0.2296	0.2327	0.2358	0.2389	0.2420	*−0.7*
0.2451	0.2483	0.2514	0.2546	0.2578	0.2611	0.2643	0.2676	0.2709	0.2743	*−0.6*
0.2776	0.2810	0.2843	0.2877	0.2912	0.2946	0.2981	0.3015	0.3050	0.3085	*−0.5*
0.3121	0.3156	0.3192	0.3228	0.3264	0.3300	0.3336	0.3372	0.3409	0.3446	*−0.4*
0.3483	0.3520	0.3557	0.3594	0.3632	0.3669	0.3707	0.3745	0.3783	0.3821	*−0.3*
0.3859	0.3897	0.3936	0.3974	0.4013	0.4052	0.4090	0.4129	0.4168	0.4207	*−0.2*
0.4247	0.4286	0.4325	0.4364	0.4404	0.4443	0.4483	0.4522	0.4562	0.4602	*−0.1*
0.4641	0.4681	0.4721	0.4761	0.4801	0.4840	0.4880	0.4920	0.4960	0.5000	*−0.0*

† For $z \leq -3.90$, the areas are 0.0000 to four decimal places.

附表2-1

Values of t_α



df	$t_{0.10}$	$t_{0.05}$	$t_{0.025}$	$t_{0.01}$	$t_{0.005}$	df
1	3.078	6.314	12.706	31.821	63.657	*1*
2	1.886	2.920	4.303	6.965	9.925	*2*
3	1.638	2.353	3.182	4.541	5.841	*3*
4	1.533	2.132	2.776	3.747	4.604	*4*
5	1.476	2.015	2.571	3.365	4.032	*5*
6	1.440	1.943	2.447	3.143	3.707	*6*
7	1.415	1.895	2.365	2.998	3.499	*7*
8	1.397	1.860	2.306	2.896	3.355	*8*
9	1.383	1.833	2.262	2.821	3.250	*9*
10	1.372	1.812	2.228	2.764	3.169	*10*
11	1.363	1.796	2.201	2.718	3.106	*11*
12	1.356	1.782	2.179	2.681	3.055	*12*
13	1.350	1.771	2.160	2.650	3.012	*13*
14	1.345	1.761	2.145	2.624	2.977	*14*
15	1.341	1.753	2.131	2.602	2.947	*15*
16	1.337	1.746	2.120	2.583	2.921	*16*
17	1.333	1.740	2.110	2.567	2.898	*17*
18	1.330	1.734	2.101	2.552	2.878	*18*
19	1.328	1.729	2.093	2.539	2.861	*19*
20	1.325	1.725	2.086	2.528	2.845	*20*
21	1.323	1.721	2.080	2.518	2.831	*21*
22	1.321	1.717	2.074	2.508	2.819	*22*
23	1.319	1.714	2.069	2.500	2.807	*23*
24	1.318	1.711	2.064	2.492	2.797	*24*
25	1.316	1.708	2.060	2.485	2.787	*25*
26	1.315	1.706	2.056	2.479	2.779	*26*
27	1.314	1.703	2.052	2.473	2.771	*27*
28	1.313	1.701	2.048	2.467	2.763	*28*
29	1.311	1.699	2.045	2.462	2.756	*29*
30	1.310	1.697	2.042	2.457	2.750	*30*
31	1.309	1.696	2.040	2.453	2.744	*31*
32	1.309	1.694	2.037	2.449	2.738	*32*
33	1.308	1.692	2.035	2.445	2.733	*33*
34	1.307	1.691	2.032	2.441	2.728	*34*
35	1.306	1.690	2.030	2.438	2.724	*35*
36	1.306	1.688	2.028	2.434	2.719	*36*
37	1.305	1.687	2.026	2.431	2.715	*37*
38	1.304	1.686	2.024	2.429	2.712	*38*
39	1.304	1.685	2.023	2.426	2.708	*39*
40	1.303	1.684	2.021	2.423	2.704	*40*
41	1.303	1.683	2.020	2.421	2.701	*41*
42	1.302	1.682	2.018	2.418	2.698	*42*
43	1.302	1.681	2.017	2.416	2.695	*43*
44	1.301	1.680	2.015	2.414	2.692	*44*
45	1.301	1.679	2.014	2.412	2.690	*45*
46	1.300	1.679	2.013	2.410	2.687	*46*
47	1.300	1.678	2.012	2.408	2.685	*47*
48	1.299	1.677	2.011	2.407	2.682	*48*
49	1.299	1.677	2.010	2.405	2.680	*49*

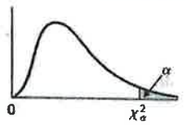
附表2-2

Values of t_α

df	$t_{0.10}$	$t_{0.05}$	$t_{0.025}$	$t_{0.01}$	$t_{0.005}$	df
50	1.299	1.676	2.009	2.403	2.678	50
51	1.298	1.675	2.008	2.402	2.676	51
52	1.298	1.675	2.007	2.400	2.674	52
53	1.298	1.674	2.006	2.399	2.672	53
54	1.297	1.674	2.005	2.397	2.670	54
55	1.297	1.673	2.004	2.396	2.668	55
56	1.297	1.673	2.003	2.395	2.667	56
57	1.297	1.672	2.002	2.394	2.665	57
58	1.296	1.672	2.002	2.392	2.663	58
59	1.296	1.671	2.001	2.391	2.662	59
60	1.296	1.671	2.000	2.390	2.660	60
61	1.296	1.670	2.000	2.389	2.659	61
62	1.295	1.670	1.999	2.388	2.657	62
63	1.295	1.669	1.998	2.387	2.656	63
64	1.295	1.669	1.998	2.386	2.655	64
65	1.295	1.669	1.997	2.385	2.654	65
66	1.295	1.668	1.997	2.384	2.652	66
67	1.294	1.668	1.996	2.383	2.651	67
68	1.294	1.668	1.995	2.382	2.650	68
69	1.294	1.667	1.995	2.382	2.649	69
70	1.294	1.667	1.994	2.381	2.648	70
71	1.294	1.667	1.994	2.380	2.647	71
72	1.293	1.666	1.993	2.379	2.646	72
73	1.293	1.666	1.993	2.379	2.645	73
74	1.293	1.666	1.993	2.378	2.644	74
75	1.293	1.665	1.992	2.377	2.643	75
80	1.292	1.664	1.990	2.374	2.639	80
85	1.292	1.663	1.988	2.371	2.635	85
90	1.291	1.662	1.987	2.368	2.632	90
95	1.291	1.661	1.985	2.366	2.629	95
100	1.290	1.660	1.984	2.364	2.626	100
200	1.286	1.653	1.972	2.345	2.601	200
300	1.284	1.650	1.968	2.339	2.592	300
400	1.284	1.649	1.966	2.336	2.588	400
500	1.283	1.648	1.965	2.334	2.586	500
600	1.283	1.647	1.964	2.333	2.584	600
700	1.283	1.647	1.963	2.332	2.583	700
800	1.283	1.647	1.963	2.331	2.582	800
900	1.282	1.647	1.963	2.330	2.581	900
1000	1.282	1.646	1.962	2.330	2.581	1000
2000	1.282	1.646	1.961	2.328	2.578	2000

附表3-1

Values of χ^2_α



df	$\chi^2_{0.995}$	$\chi^2_{0.99}$	$\chi^2_{0.975}$	$\chi^2_{0.95}$	$\chi^2_{0.90}$
1	0.000	0.000	0.001	0.004	0.016
2	0.010	0.020	0.051	0.103	0.211
3	0.072	0.115	0.216	0.352	0.584
4	0.207	0.297	0.484	0.711	1.064
5	0.412	0.554	0.831	1.145	1.610
6	0.676	0.872	1.237	1.635	2.204
7	0.989	1.239	1.690	2.167	2.833
8	1.344	1.646	2.180	2.733	3.490
9	1.735	2.088	2.700	3.325	4.168
10	2.156	2.558	3.247	3.940	4.865
11	2.603	3.053	3.816	4.575	5.578
12	3.074	3.571	4.404	5.226	6.304
13	3.565	4.107	5.009	5.892	7.042
14	4.075	4.660	5.629	6.571	7.790
15	4.601	5.229	6.262	7.261	8.547
16	5.142	5.812	6.908	7.962	9.312
17	5.697	6.408	7.564	8.672	10.085
18	6.265	7.015	8.231	9.390	10.865
19	6.844	7.633	8.907	10.117	11.651
20	7.434	8.260	9.591	10.851	12.443
21	8.034	8.897	10.283	11.591	13.240
22	8.643	9.542	10.982	12.338	14.041
23	9.260	10.196	11.689	13.091	14.848
24	9.886	10.856	12.401	13.848	15.659
25	10.520	11.524	13.120	14.611	16.473
26	11.160	12.198	13.844	15.379	17.292
27	11.808	12.879	14.573	16.151	18.114
28	12.461	13.565	15.308	16.928	18.939
29	13.121	14.256	16.047	17.708	19.768
30	13.787	14.953	16.791	18.493	20.599
40	20.707	22.164	24.433	26.509	29.051
50	27.991	29.707	32.357	34.764	37.689
60	35.534	37.485	40.482	43.188	46.459
70	43.275	45.442	48.758	51.739	55.329
80	51.172	53.540	57.153	60.391	64.278
90	59.196	61.754	65.647	69.126	73.291
100	67.328	70.065	74.222	77.930	82.358

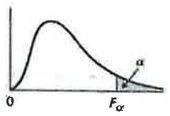
注意：背面尚有參考資料

附表3-2

Values of χ^2_α

$\chi^2_{0.10}$	$\chi^2_{0.05}$	$\chi^2_{0.025}$	$\chi^2_{0.01}$	$\chi^2_{0.005}$	df
2.706	3.841	5.024	6.635	7.879	*1*
4.605	5.991	7.378	9.210	10.597	*2*
6.251	7.815	9.348	11.345	12.838	*3*
7.779	9.488	11.143	13.277	14.860	*4*
9.236	11.070	12.833	15.086	16.750	*5*
10.645	12.592	14.449	16.812	18.548	*6*
12.017	14.067	16.013	18.475	20.278	*7*
13.362	15.507	17.535	20.090	21.955	*8*
14.684	16.919	19.023	21.666	23.589	*9*
15.987	18.307	20.483	23.209	25.188	*10*
17.275	19.675	21.920	24.725	26.757	*11*
18.549	21.026	23.337	26.217	28.300	*12*
19.812	22.362	24.736	27.688	29.819	*13*
21.064	23.685	26.119	29.141	31.319	*14*
22.307	24.996	27.488	30.578	32.801	*15*
23.542	26.296	28.845	32.000	34.267	*16*
24.769	27.587	30.191	33.409	35.718	*17*
25.989	28.869	31.526	34.805	37.156	*18*
27.204	30.143	32.852	36.191	38.582	*19*
28.412	31.410	34.170	37.566	39.997	*20*
29.615	32.671	35.479	38.932	41.401	*21*
30.813	33.924	36.781	40.290	42.796	*22*
32.007	35.172	38.076	41.638	44.181	*23*
33.196	36.415	39.364	42.980	45.559	*24*
34.382	37.653	40.647	44.314	46.928	*25*
35.563	38.885	41.923	45.642	48.290	*26*
36.741	40.113	43.195	46.963	49.645	*27*
37.916	41.337	44.461	48.278	50.994	*28*
39.087	42.557	45.722	49.588	52.336	*29*
40.256	43.773	46.979	50.892	53.672	*30*
51.805	55.759	59.342	63.691	66.767	*40*
63.167	67.505	71.420	76.154	79.490	*50*
74.397	79.082	83.298	88.381	91.955	*60*
85.527	90.531	95.023	100.424	104.213	*70*
96.578	101.879	106.628	112.328	116.320	*80*
107.565	113.145	118.135	124.115	128.296	*90*
118.499	124.343	129.563	135.811	140.177	*100*

附表4-1 Values of F_α



dfd	α	dfn 1	2	3	4	5	6	7	8	9
	0.10	39.86	49.50	53.59	55.83	57.24	58.20	58.91	59.44	59.86
	0.05	161.45	199.50	215.71	224.58	230.16	233.99	236.77	238.88	240.54
1	*0.025*	647.79	799.50	864.16	899.58	921.85	937.11	948.22	956.66	963.28
	0.01	4052.2	4999.5	5403.4	5624.6	5763.6	5859.0	5928.4	5981.1	6022.5
	0.005	16211	20000	21615	22500	23056	23437	23715	23925	24091
	0.10	8.53	9.00	9.16	9.24	9.29	9.33	9.35	9.37	9.38
	0.05	18.51	19.00	19.16	19.25	19.30	19.33	19.35	19.37	19.38
2	*0.025*	38.51	39.00	39.17	39.25	39.30	39.33	39.36	39.37	39.39
	0.01	98.50	99.00	99.17	99.25	99.30	99.33	99.36	99.37	99.39
	0.005	198.50	199.00	199.17	199.25	199.30	199.33	199.36	199.37	199.39
	0.10	5.54	5.46	5.39	5.34	5.31	5.28	5.27	5.25	5.24
	0.05	10.13	9.55	9.28	9.12	9.01	8.94	8.89	8.85	8.81
3	*0.025*	17.44	16.04	15.44	15.10	14.88	14.73	14.62	14.54	14.47
	0.01	34.12	30.82	29.46	28.71	28.24	27.91	27.67	27.49	27.35
	0.005	55.55	49.80	47.47	46.19	45.39	44.84	44.43	44.13	43.88
	0.10	4.54	4.32	4.19	4.11	4.05	4.01	3.98	3.95	3.94
	0.05	7.71	6.94	6.59	6.39	6.26	6.16	6.09	6.04	6.00
4	*0.025*	12.22	10.65	9.98	9.60	9.36	9.20	9.07	8.98	8.90
	0.01	21.20	18.00	16.69	15.98	15.52	15.21	14.98	14.80	14.66
	0.005	31.33	26.28	24.26	23.15	22.46	21.97	21.62	21.35	21.14
	0.10	4.06	3.78	3.62	3.52	3.45	3.40	3.37	3.34	3.32
	0.05	6.61	5.79	5.41	5.19	5.05	4.95	4.88	4.82	4.77
5	*0.025*	10.01	8.43	7.76	7.39	7.15	6.98	6.85	6.76	6.68
	0.01	16.26	13.27	12.06	11.39	10.97	10.67	10.46	10.29	10.16
	0.005	22.78	18.31	16.53	15.56	14.94	14.51	14.20	13.96	13.77
	0.10	3.78	3.46	3.29	3.18	3.11	3.05	3.01	2.98	2.96
	0.05	5.99	5.14	4.76	4.53	4.39	4.28	4.21	4.15	4.10
6	*0.025*	8.81	7.26	6.60	6.23	5.99	5.82	5.70	5.60	5.52
	0.01	13.75	10.92	9.78	9.15	8.75	8.47	8.26	8.10	7.98
	0.005	18.63	14.54	12.92	12.03	11.46	11.07	10.79	10.57	10.39
	0.10	3.59	3.26	3.07	2.96	2.88	2.83	2.78	2.75	2.72
	0.05	5.59	4.74	4.35	4.12	3.97	3.87	3.79	3.73	3.68
7	*0.025*	8.07	6.54	5.89	5.52	5.29	5.12	4.99	4.90	4.82
	0.01	12.25	9.55	8.45	7.85	7.46	7.19	6.99	6.84	6.72
	0.005	16.24	12.40	10.88	10.05	9.52	9.16	8.89	8.68	8.51
	0.10	3.46	3.11	2.92	2.81	2.73	2.67	2.62	2.59	2.56
	0.05	5.32	4.46	4.07	3.84	3.69	3.58	3.50	3.44	3.39
8	*0.025*	7.57	6.06	5.42	5.05	4.82	4.65	4.53	4.43	4.36
	0.01	11.26	8.65	7.59	7.01	6.63	6.37	6.18	6.03	5.91
	0.005	14.69	11.04	9.60	8.81	8.30	7.95	7.69	7.50	7.34

附表4-2

Values of F_α

dfn 10	12	15	20	24	30	40	60	120	α	dfd
60.19	60.71	61.22	61.74	62.00	62.26	62.53	62.79	63.06	0.10	
241.88	243.91	245.95	248.01	249.05	250.10	251.14	252.20	253.25	0.05	
968.63	976.71	984.87	993.10	997.25	1001.41	1005.60	1009.80	1014.02	0.025	1
6055.8	6106.3	6157.3	6208.7	6234.6	6260.6	6286.7	631.9	6339.4	0.01	
24224	24426	24630	24836	24940	25044	25148	25253	25359	0.005	
9.39	9.41	9.42	9.44	9.45	9.46	9.47	9.47	9.48	0.10	
19.40	19.41	19.43	19.45	19.45	19.46	19.47	19.48	19.49	0.05	
39.40	39.41	39.43	39.45	39.46	39.46	39.47	39.48	39.49	0.025	2
99.40	99.42	99.43	99.45	99.46	99.47	99.47	99.48	99.49	0.01	
199.40	199.42	199.43	199.45	199.46	199.47	199.47	199.48	199.49	0.005	
5.23	5.22	5.20	5.18	5.18	5.17	5.16	5.15	5.14	0.10	
8.79	8.74	8.70	8.66	8.64	8.62	8.59	8.57	8.55	0.05	
14.42	14.34	14.25	14.17	14.12	14.08	14.04	13.99	13.95	0.025	3
27.23	27.05	26.87	26.69	26.60	26.50	26.41	26.32	26.22	0.01	
43.69	43.39	43.08	42.78	42.62	42.47	42.31	42.15	41.99	0.005	
3.92	3.90	3.87	3.84	3.83	3.82	3.80	3.79	3.78	0.10	
5.96	5.91	5.86	5.80	5.77	5.75	5.72	5.69	5.66	0.05	
8.84	8.75	8.66	8.56	8.51	8.46	8.41	8.36	8.31	0.025	4
14.55	14.37	14.20	14.02	13.93	13.84	13.75	13.65	13.56	0.01	
20.97	20.70	20.44	20.17	20.03	19.89	19.75	19.61	19.47	0.005	
3.30	3.27	3.24	3.21	3.19	3.17	3.16	3.14	3.12	0.10	
4.74	4.68	4.62	4.56	4.53	4.50	4.46	4.43	4.40	0.05	
6.62	6.52	6.43	6.33	6.28	6.23	6.18	6.12	6.07	0.025	5
10.05	9.89	9.72	9.55	9.47	9.38	9.29	9.20	9.11	0.01	
13.62	13.38	13.15	12.90	12.78	12.66	12.53	12.40	12.27	0.005	
2.94	2.90	2.87	2.84	2.82	2.80	2.78	2.76	2.74	0.10	
4.06	4.00	3.94	3.87	3.84	3.81	3.77	3.74	3.70	0.05	
5.46	5.37	5.27	5.17	5.12	5.07	5.01	4.96	4.90	0.025	6
7.87	7.72	7.56	7.40	7.31	7.23	7.14	7.06	6.97	0.01	
10.25	10.03	9.81	9.59	9.47	9.36	9.24	9.12	9.00	0.005	
2.70	2.67	2.63	2.59	2.58	2.56	2.54	2.51	2.49	0.10	
3.64	3.57	3.51	3.44	3.41	3.38	3.34	3.30	3.27	0.05	
4.76	4.67	4.57	4.47	4.41	4.36	4.31	4.25	4.20	0.025	7
6.62	6.47	6.31	6.16	6.07	5.99	5.91	5.82	5.74	0.01	
8.38	8.18	7.97	7.75	7.64	7.53	7.42	7.31	7.19	0.005	
2.54	2.50	2.46	2.42	2.40	2.38	2.36	2.34	2.32	0.10	
3.35	3.28	3.22	3.15	3.12	3.08	3.04	3.01	2.97	0.05	
4.30	4.20	4.10	4.00	3.95	3.89	3.84	3.78	3.73	0.025	8
5.81	5.67	5.52	5.36	5.28	5.20	5.12	5.03	4.95	0.01	
7.21	7.01	6.81	6.61	6.50	6.40	6.29	6.18	6.06	0.005	

附表4-3

Values of F_α

dfd	α	dfn 1	2	3	4	5	6	7	8	9
	0.10	3.36	3.01	2.81	2.69	2.61	2.55	2.51	2.47	2.44
	0.05	5.12	4.26	3.86	3.63	3.48	3.37	3.29	3.23	3.18
9	0.025	7.21	5.71	5.08	4.72	4.48	4.32	4.20	4.10	4.03
	0.01	10.56	8.02	6.99	6.42	6.06	5.80	5.61	5.47	5.35
	0.005	13.61	10.11	8.72	7.96	7.47	7.13	6.88	6.69	6.54
	0.10	3.29	2.92	2.73	2.61	2.52	2.46	2.41	2.38	2.35
	0.05	4.96	4.10	3.71	3.48	3.33	3.22	3.14	3.07	3.02
10	0.025	6.94	5.46	4.83	4.47	4.24	4.07	3.95	3.85	3.78
	0.01	10.04	7.56	6.55	5.99	5.64	5.39	5.20	5.06	4.94
	0.005	12.83	9.43	8.08	7.34	6.87	6.54	6.30	6.12	5.97
	0.10	3.23	2.86	2.66	2.54	2.45	2.39	2.34	2.30	2.27
	0.05	4.84	3.98	3.59	3.36	3.20	3.09	3.01	2.95	2.90
11	0.025	6.72	5.26	4.63	4.28	4.04	3.88	3.76	3.66	3.59
	0.01	9.65	7.21	6.22	5.67	5.32	5.07	4.89	4.74	4.63
	0.005	12.23	8.91	7.60	6.88	6.42	6.10	5.86	5.68	5.54
	0.10	3.18	2.81	2.61	2.48	2.39	2.33	2.28	2.24	2.21
	0.05	4.75	3.89	3.49	3.26	3.11	3.00	2.91	2.85	2.80
12	0.025	6.55	5.10	4.47	4.12	3.89	3.73	3.61	3.51	3.44
	0.01	9.33	6.93	5.95	5.41	5.06	4.82	4.64	4.50	4.39
	0.005	11.75	8.51	7.23	6.52	6.07	5.76	5.52	5.35	5.20
	0.10	3.14	2.76	2.56	2.43	2.35	2.28	2.23	2.20	2.16
	0.05	4.67	3.81	3.41	3.18	3.03	2.92	2.83	2.77	2.71
13	0.025	6.41	4.97	4.35	4.00	3.77	3.60	3.48	3.39	3.31
	0.01	9.07	6.70	5.74	5.21	4.86	4.62	4.44	4.30	4.19
	0.005	11.37	8.19	6.93	6.23	5.79	5.48	5.25	5.08	4.94
	0.10	3.10	2.73	2.52	2.39	2.31	2.24	2.19	2.15	2.12
	0.05	4.60	3.74	3.34	3.11	2.96	2.85	2.76	2.70	2.65
14	0.025	6.30	4.86	4.24	3.89	3.66	3.50	3.38	3.29	3.21
	0.01	8.86	6.51	5.56	5.04	4.69	4.46	4.28	4.14	4.03
	0.005	11.06	7.92	6.68	6.00	5.56	5.26	5.03	4.86	4.72
	0.10	3.07	2.70	2.49	2.36	2.27	2.21	2.16	2.12	2.09
	0.05	4.54	3.68	3.29	3.06	2.90	2.79	2.71	2.64	2.59
15	0.025	6.20	4.77	4.15	3.80	3.58	3.41	3.29	3.20	3.12
	0.01	8.68	6.36	5.42	4.89	4.56	4.32	4.14	4.00	3.89
	0.005	10.80	7.70	6.48	5.80	5.37	5.07	4.85	4.67	4.54
	0.10	3.05	2.67	2.46	2.33	2.24	2.18	2.13	2.09	2.06
	0.05	4.49	3.63	3.24	3.01	2.85	2.74	2.66	2.59	2.54
16	0.025	6.12	4.69	4.08	3.73	3.50	3.34	3.22	3.12	3.05
	0.01	8.53	6.23	5.29	4.77	4.44	4.20	4.03	3.89	3.78
	0.005	10.58	7.51	6.30	5.64	5.21	4.91	4.69	4.52	4.38

注意：背面尚有參考資料

附表4-4

Values of F_α

dfn										
10	*12*	*15*	*20*	*24*	*30*	*40*	*60*	*120*	**α**	**dfd**
2.42	2.38	2.34	2.30	2.28	2.25	2.23	2.21	2.18	*0.10*	
3.14	3.07	3.01	2.94	2.90	2.86	2.83	2.79	2.75	*0.05*	
3.96	3.87	3.77	3.67	3.61	3.56	3.51	3.45	3.39	*0.025*	*9*
5.26	5.11	4.96	4.81	4.73	4.65	4.57	4.48	4.40	*0.01*	
6.42	6.23	6.03	5.83	5.73	5.62	5.52	5.41	5.30	*0.005*	
2.32	2.28	2.24	2.20	2.18	2.16	2.13	2.11	2.08	*0.10*	
2.98	2.91	2.85	2.77	2.74	2.70	2.66	2.62	2.58	*0.05*	
3.72	3.62	3.52	3.42	3.37	3.31	3.26	3.20	3.14	*0.025*	*10*
4.85	4.71	4.56	4.41	4.33	4.25	4.17	4.08	4.00	*0.01*	
5.85	5.66	5.47	5.27	5.17	5.07	4.97	4.86	4.75	*0.005*	
2.25	2.21	2.17	2.12	2.10	2.08	2.05	2.03	2.00	*0.10*	
2.85	2.79	2.72	2.65	2.61	2.57	2.53	2.49	2.45	*0.05*	
3.53	3.43	3.33	3.23	3.17	3.12	3.06	3.00	2.94	*0.025*	*11*
4.54	4.40	4.25	4.10	4.02	3.94	3.86	3.78	3.69	*0.01*	
5.42	5.24	5.05	4.86	4.76	4.65	4.55	4.45	4.34	*0.005*	
2.19	2.15	2.10	2.06	2.04	2.01	1.99	1.96	1.93	*0.10*	
2.75	2.69	2.62	2.54	2.51	2.47	2.43	2.38	2.34	*0.05*	
3.37	3.28	3.18	3.07	3.02	2.96	2.91	2.85	2.79	*0.025*	*12*
4.30	4.16	4.01	3.86	3.78	3.70	3.62	3.54	3.45	*0.01*	
5.09	4.91	4.72	4.53	4.43	4.33	4.23	4.12	4.01	*0.005*	
2.14	2.10	2.05	2.01	1.98	1.96	1.93	1.90	1.88	*0.10*	
2.67	2.60	2.53	2.46	2.42	2.38	2.34	2.30	2.25	*0.05*	
3.25	3.15	3.05	2.95	2.89	2.84	2.78	2.72	2.66	*0.025*	*13*
4.10	3.96	3.82	3.66	3.59	3.51	3.43	3.34	3.25	*0.01*	
4.82	4.64	4.46	4.27	4.17	4.07	3.97	3.87	3.76	*0.005*	
2.10	2.05	2.01	1.96	1.94	1.91	1.89	1.86	1.83	*0.10*	
2.60	2.53	2.46	2.39	2.35	2.31	2.27	2.22	2.18	*0.05*	
3.15	3.05	2.95	2.84	2.79	2.73	2.67	2.61	2.55	*0.025*	*14*
3.94	3.80	3.66	3.51	3.43	3.35	3.27	3.18	3.09	*0.01*	
4.60	4.43	4.25	4.06	3.96	3.86	3.76	3.66	3.55	*0.005*	
2.06	2.02	1.97	1.92	1.90	1.87	1.85	1.82	1.79	*0.10*	
2.54	2.48	2.40	2.33	2.29	2.25	2.20	2.16	2.11	*0.05*	
3.06	2.96	2.86	2.76	2.70	2.64	2.59	2.52	2.46	*0.025*	*15*
3.80	3.67	3.52	3.37	3.29	3.21	3.13	3.05	2.96	*0.01*	
4.42	4.25	4.07	3.88	3.79	3.69	3.58	3.48	3.37	*0.005*	
2.03	1.99	1.94	1.89	1.87	1.84	1.81	1.78	1.75	*0.10*	
2.49	2.42	2.35	2.28	2.24	2.19	2.15	2.11	2.06	*0.05*	
2.99	2.89	2.79	2.68	2.63	2.57	2.51	2.45	2.38	*0.025*	*16*
3.69	3.55	3.41	3.26	3.18	3.10	3.02	2.93	2.84	*0.01*	
4.27	4.10	3.92	3.73	3.64	3.54	3.44	3.33	3.22	*0.005*	

附表4-5

Values of F_α

dfd	α	dfn *1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*
	0.10	3.03	2.64	2.44	2.31	2.22	2.15	2.10	2.06	2.03
	0.05	4.45	3.59	3.20	2.96	2.81	2.70	2.61	2.55	2.49
17	*0.025*	6.04	4.62	4.01	3.66	3.44	3.28	3.16	3.06	2.98
	0.01	8.40	6.11	5.18	4.67	4.34	4.10	3.93	3.79	3.68
	0.005	10.38	7.35	6.16	5.50	5.07	4.78	4.56	4.39	4.25
	0.10	3.01	2.62	2.42	2.29	2.20	2.13	2.08	2.04	2.00
	0.05	4.41	3.55	3.16	2.93	2.77	2.66	2.58	2.51	2.46
18	*0.025*	5.98	4.56	3.95	3.61	3.38	3.22	3.10	3.01	2.93
	0.01	8.29	6.01	5.09	4.58	4.25	4.01	3.84	3.71	3.60
	0.005	10.22	7.21	6.03	5.37	4.96	4.66	4.44	4.28	4.14
	0.10	2.99	2.61	2.40	2.27	2.18	2.11	2.06	2.02	1.98
	0.05	4.38	3.52	3.13	2.90	2.74	2.63	2.54	2.48	2.42
19	*0.025*	5.92	4.51	3.90	3.56	3.33	3.17	3.05	2.96	2.88
	0.01	8.18	5.93	5.01	4.50	4.17	3.94	3.77	3.63	3.52
	0.005	10.07	7.09	5.92	5.27	4.85	4.56	4.34	4.18	4.04
	0.10	2.97	2.59	2.38	2.25	2.16	2.09	2.04	2.00	1.96
	0.05	4.35	3.49	3.10	2.87	2.71	2.60	2.51	2.45	2.39
20	*0.025*	5.87	4.46	3.86	3.51	3.29	3.13	3.01	2.91	2.84
	0.01	8.10	5.85	4.94	4.43	4.10	3.87	3.70	3.56	3.46
	0.005	9.94	6.99	5.82	5.17	4.76	4.47	4.26	4.09	3.96
	0.10	2.96	2.57	2.36	2.23	2.14	2.08	2.02	1.98	1.95
	0.05	4.32	3.47	3.07	2.84	2.68	2.57	2.49	2.42	2.37
21	*0.025*	5.83	4.42	3.82	3.48	3.25	3.09	2.97	2.87	2.80
	0.01	8.02	5.78	4.87	4.37	4.04	3.81	3.64	3.51	3.40
	0.005	9.83	6.89	5.73	5.09	4.68	4.39	4.18	4.01	3.88
	0.10	2.95	2.56	2.35	2.22	2.13	2.06	2.01	1.97	1.93
	0.05	4.30	3.44	3.05	2.82	2.66	2.55	2.46	2.40	2.34
22	*0.025*	5.79	4.38	3.78	3.44	3.22	3.05	2.93	2.84	2.76
	0.01	7.95	5.72	4.82	4.31	3.99	3.76	3.59	3.45	3.35
	0.005	9.73	6.81	5.65	5.02	4.61	4.32	4.11	3.94	3.81
	0.10	2.94	2.55	2.34	2.21	2.11	2.05	1.99	1.95	1.92
	0.05	4.28	3.42	3.03	2.80	2.64	2.53	2.44	2.37	2.32
23	*0.025*	5.75	4.35	3.75	3.41	3.18	3.02	2.90	2.81	2.73
	0.01	7.88	5.66	4.76	4.26	3.94	3.71	3.54	3.41	3.30
	0.005	9.63	6.73	5.58	4.95	4.54	4.26	4.05	3.88	3.75
	0.10	2.93	2.54	2.33	2.19	2.10	2.04	1.98	1.94	1.91
	0.05	4.26	3.40	3.01	2.78	2.62	2.51	2.42	2.36	2.30
24	*0.025*	5.72	4.32	3.72	3.38	3.15	2.99	2.87	2.78	2.70
	0.01	7.82	5.61	4.72	4.22	3.90	3.67	3.50	3.36	3.26
	0.005	9.55	6.66	5.52	4.89	4.49	4.20	3.99	3.83	3.69

附表4-6

Values of F_α

dfn										
10	*12*	*15*	*20*	*24*	*30*	*40*	*60*	*120*	*α*	**dfd**
2.00	1.96	1.91	1.86	1.84	1.81	1.78	1.75	1.72	*0.10*	
2.45	2.38	2.31	2.23	2.19	2.15	2.10	2.06	2.01	*0.05*	
2.92	2.82	2.72	2.62	2.56	2.50	2.44	2.38	2.32	*0.025*	*17*
3.59	3.46	3.31	3.16	3.08	3.00	2.92	2.83	2.75	*0.01*	
4.14	3.97	3.79	3.61	3.51	3.41	3.31	3.21	3.10	*0.005*	
1.98	1.93	1.89	1.84	1.81	1.78	1.75	1.72	1.69	*0.10*	
2.41	2.34	2.27	2.19	2.15	2.11	2.06	2.02	1.97	*0.05*	
2.87	2.77	2.67	2.56	2.50	2.44	2.38	2.32	2.26	*0.025*	*18*
3.51	3.37	3.23	3.08	3.00	2.92	2.84	2.75	2.66	*0.01*	
4.03	3.86	3.68	3.50	3.40	3.30	3.20	3.10	2.99	*0.005*	
1.96	1.91	1.86	1.81	1.79	1.76	1.73	1.70	1.67	*0.10*	
2.38	2.31	2.23	2.16	2.11	2.07	2.03	1.98	1.93	*0.05*	
2.82	2.72	2.62	2.51	2.45	2.39	2.33	2.27	2.20	*0.025*	*19*
3.43	3.30	3.15	3.00	2.92	2.84	2.76	2.67	2.58	*0.01*	
3.93	3.76	3.59	3.40	3.31	3.21	3.11	3.00	2.89	*0.005*	
1.94	1.89	1.84	1.79	1.77	1.74	1.71	1.68	1.64	*0.10*	
2.35	2.28	2.20	2.12	2.08	2.04	1.99	1.95	1.90	*0.05*	
2.77	2.68	2.57	2.46	2.41	2.35	2.29	2.22	2.16	*0.025*	*20*
3.37	3.23	3.09	2.94	2.86	2.78	2.69	2.61	2.52	*0.01*	
3.85	3.68	3.50	3.32	3.22	3.12	3.02	2.92	2.81	*0.005*	
1.92	1.87	1.83	1.78	1.75	1.72	1.69	1.66	1.62	*0.10*	
2.32	2.25	2.18	2.10	2.05	2.01	1.96	1.92	1.87	*0.05*	
2.73	2.64	2.53	2.42	2.37	2.31	2.25	2.18	2.11	*0.025*	*21*
3.31	3.17	3.03	2.88	2.80	2.72	2.64	2.55	2.46	*0.01*	
3.77	3.60	3.43	3.24	3.15	3.05	2.95	2.84	2.73	*0.005*	
1.90	1.86	1.81	1.76	1.73	1.70	1.67	1.64	1.60	*0.10*	
2.30	2.23	2.15	2.07	2.03	1.98	1.94	1.89	1.84	*0.05*	
2.70	2.60	2.50	2.39	2.33	2.27	2.21	2.14	2.08	*0.025*	*22*
3.26	3.12	2.98	2.83	2.75	2.67	2.58	2.50	2.40	*0.01*	
3.70	3.54	3.36	3.18	3.08	2.98	2.88	2.77	2.66	*0.005*	
1.89	1.84	1.80	1.74	1.72	1.69	1.66	1.62	1.59	*0.10*	
2.27	2.20	2.13	2.05	2.01	1.96	1.91	1.86	1.81	*0.05*	
2.67	2.57	2.47	2.36	2.30	2.24	2.18	2.11	2.04	*0.025*	*23*
3.21	3.07	2.93	2.78	2.70	2.62	2.54	2.45	2.35	*0.01*	
3.64	3.47	3.30	3.12	3.02	2.92	2.82	2.71	2.60	*0.005*	
1.88	1.83	1.78	1.73	1.70	1.67	1.64	1.61	1.57	*0.10*	
2.25	2.18	2.11	2.03	1.98	1.94	1.89	1.84	1.79	*0.05*	
2.64	2.54	2.44	2.33	2.27	2.21	2.15	2.08	2.01	*0.025*	*24*
3.17	3.03	2.89	2.74	2.66	2.58	2.49	2.40	2.31	*0.01*	
3.59	3.42	3.25	3.06	2.97	2.87	2.77	2.66	2.55	*0.005*	

附表4-7

Values of F_α

		dfn								
dfd	*α*	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*
	0.10	2.92	2.53	2.32	2.18	2.09	2.02	1.97	1.93	1.89
	0.05	4.24	3.39	2.99	2.76	2.60	2.49	2.40	2.34	2.28
25	*0.025*	5.69	4.29	3.69	3.35	3.13	2.97	2.85	2.75	2.68
	0.01	7.77	5.57	4.68	4.18	3.85	3.63	3.46	3.32	3.22
	0.005	9.48	6.60	5.46	4.84	4.43	4.15	3.94	3.78	3.64
	0.10	2.91	2.52	2.31	2.17	2.08	2.01	1.96	1.92	1.88
	0.05	4.23	3.37	2.98	2.74	2.59	2.47	2.39	2.32	2.27
26	*0.025*	5.66	4.27	3.67	3.33	3.10	2.94	2.82	2.73	2.65
	0.01	7.72	5.53	4.64	4.14	3.82	3.59	3.42	3.29	3.18
	0.005	9.41	6.54	5.41	4.79	4.38	4.10	3.89	3.73	3.60
	0.10	2.90	2.51	2.30	2.17	2.07	2.00	1.95	1.91	1.87
	0.05	4.21	3.35	2.96	2.73	2.57	2.46	2.37	2.31	2.25
27	*0.025*	5.63	4.24	3.65	3.31	3.08	2.92	2.80	2.71	2.63
	0.01	7.68	5.49	4.60	4.11	3.78	3.56	3.39	3.26	3.15
	0.005	9.34	6.49	5.36	4.74	4.34	4.06	3.85	3.69	3.56
	0.10	2.89	2.50	2.29	2.16	2.06	2.00	1.94	1.90	1.87
	0.05	4.20	3.34	2.95	2.71	2.56	2.45	2.36	2.29	2.24
28	*0.025*	5.61	4.22	3.63	3.29	3.06	2.90	2.78	2.69	2.61
	0.01	7.64	5.45	4.57	4.07	3.75	3.53	3.36	3.23	3.12
	0.005	9.28	6.44	5.32	4.70	4.30	4.02	3.81	3.65	3.52
	0.10	2.89	2.50	2.28	2.15	2.06	1.99	1.93	1.89	1.86
	0.05	4.18	3.33	2.93	2.70	2.55	2.43	2.35	2.28	2.22
29	*0.025*	5.59	4.20	3.61	3.27	3.04	2.88	2.76	2.67	2.59
	0.01	7.60	5.42	4.54	4.04	3.73	3.50	3.33	3.20	3.09
	0.005	9.23	6.40	5.28	4.66	4.26	3.98	3.77	3.61	3.48
	0.10	2.88	2.49	2.28	2.14	2.05	1.98	1.93	1.88	1.85
	0.05	4.17	3.32	2.92	2.69	2.53	2.42	2.33	2.27	2.21
30	*0.025*	5.57	4.18	3.59	3.25	3.03	2.87	2.75	2.65	2.57
	0.01	7.56	5.39	4.51	4.02	3.70	3.47	3.30	3.17	3.07
	0.005	9.18	6.35	5.24	4.62	4.23	3.95	3.74	3.58	3.45
	0.10	2.79	2.39	2.18	2.04	1.95	1.87	1.82	1.77	1.74
	0.05	4.00	3.15	2.76	2.53	2.37	2.25	2.17	2.10	2.04
60	*0.025*	5.29	3.93	3.34	3.01	2.79	2.63	2.51	2.41	2.33
	0.01	7.08	4.98	4.13	3.65	3.34	3.12	2.95	2.82	2.72
	0.005	8.49	5.79	4.73	4.14	3.76	3.49	3.29	3.13	3.01
	0.10	2.75	2.35	2.13	1.99	1.90	1.82	1.77	1.72	1.68
	0.05	3.92	3.07	2.68	2.45	2.29	2.18	2.09	2.02	1.96
120	*0.025*	5.15	3.80	3.23	2.89	2.67	2.52	2.39	2.30	2.22
	0.01	6.85	4.79	3.95	3.48	3.17	2.96	2.79	2.66	2.56
	0.005	8.18	5.54	4.50	3.92	3.55	3.28	3.09	2.93	2.81

注意：背面尚有參考資料

附表 4-8

Values of F_α

dfn										
10	*12*	*15*	*20*	*24*	*30*	*40*	*60*	*120*	α	dfd
1.87	1.82	1.77	1.72	1.69	1.66	1.63	1.59	1.56	*0.10*	
2.24	2.16	2.09	2.01	1.96	1.92	1.87	1.82	1.77	*0.05*	
2.61	2.51	2.41	2.30	2.24	2.18	2.12	2.05	1.98	*0.025*	*25*
3.13	2.99	2.85	2.70	2.62	2.54	2.45	2.36	2.27	*0.01*	
3.54	3.37	3.20	3.01	2.92	2.82	2.72	2.61	2.50	*0.005*	
1.86	1.81	1.76	1.71	1.68	1.65	1.61	1.58	1.54	*0.10*	
2.22	2.15	2.07	1.99	1.95	1.90	1.85	1.80	1.75	*0.05*	
2.59	2.49	2.39	2.28	2.22	2.16	2.09	2.03	1.95	*0.025*	*26*
3.09	2.96	2.81	2.66	2.58	2.50	2.42	2.33	2.23	*0.01*	
3.49	3.33	3.15	2.97	2.87	2.77	2.67	2.56	2.45	*0.005*	
1.85	1.80	1.75	1.70	1.67	1.64	1.60	1.57	1.53	*0.10*	
2.20	2.13	2.06	1.97	1.93	1.88	1.84	1.79	1.73	*0.05*	
2.57	2.47	2.36	2.25	2.19	2.13	2.07	2.00	1.93	*0.025*	*27*
3.06	2.93	2.78	2.63	2.55	2.47	2.38	2.29	2.20	*0.01*	
3.45	3.28	3.11	2.93	2.83	2.73	2.63	2.52	2.41	*0.005*	
1.84	1.79	1.74	1.69	1.66	1.63	1.59	1.56	1.52	*0.10*	
2.19	2.12	2.04	1.96	1.91	1.87	1.82	1.77	1.71	*0.05*	
2.55	2.45	2.34	2.23	2.17	2.11	2.05	1.98	1.91	*0.025*	*28*
3.03	2.90	2.75	2.60	2.52	2.44	2.35	2.26	2.17	*0.01*	
3.41	3.25	3.07	2.89	2.79	2.69	2.59	2.48	2.37	*0.005*	
1.83	1.78	1.73	1.68	1.65	1.62	1.58	1.55	1.51	*0.10*	
2.18	2.10	2.03	1.94	1.90	1.85	1.81	1.75	1.70	*0.05*	
2.53	2.43	2.32	2.21	2.15	2.09	2.03	1.96	1.89	*0.025*	*29*
3.00	2.87	2.73	2.57	2.49	2.41	2.33	2.23	2.14	*0.01*	
3.38	3.21	3.04	2.86	2.76	2.66	2.56	2.45	2.33	*0.005*	
1.82	1.77	1.72	1.67	1.64	1.61	1.57	1.54	1.50	*0.10*	
2.16	2.09	2.01	1.93	1.89	1.84	1.79	1.74	1.68	*0.05*	
2.51	2.41	2.31	2.20	2.14	2.07	2.01	1.94	1.87	*0.025*	*30*
2.98	2.84	2.70	2.55	2.47	2.39	2.30	2.21	2.11	*0.01*	
3.34	3.18	3.01	2.82	2.73	2.63	2.52	2.42	2.30	*0.005*	
1.71	1.66	1.60	1.54	1.51	1.48	1.44	1.40	1.35	*0.10*	
1.99	1.92	1.84	1.75	1.70	1.65	1.59	1.53	1.47	*0.05*	
2.27	2.17	2.06	1.94	1.88	1.82	1.74	1.67	1.58	*0.025*	*60*
2.63	2.50	2.35	2.20	2.12	2.03	1.94	1.84	1.73	*0.01*	
2.90	2.74	2.57	2.39	2.29	2.19	2.08	1.96	1.83	*0.005*	
1.65	1.60	1.55	1.48	1.45	1.41	1.37	1.32	1.26	*0.10*	
1.91	1.83	1.75	1.66	1.61	1.55	1.50	1.43	1.35	*0.05*	
2.16	2.05	1.94	1.82	1.76	1.69	1.61	1.53	1.43	*0.025*	*120*
2.47	2.34	2.19	2.03	1.95	1.86	1.76	1.66	1.53	*0.01*	
2.71	2.54	2.37	2.19	2.09	1.98	1.87	1.75	1.61	*0.005*	