

# 國立臺北大學公共行政暨政策學系

## 96 學年度碩士班甄試招生考試

### 統 計 學

第 1 頁 共 2 頁  
可使用計算機

- 一. 下表列有 95 年 9 月份服務業、工業、製造業...等八個行業的受雇人數與平均薪資的推估資料，平均薪資是從各行業各隨機抽選許多受雇人員的統計結果。

行業名稱	受雇人數(萬人)				平均薪資(萬元)			
	男	女	合計	比率	男	女	合計	差異
1. 服務業	152	163	315	0.28	4.5	3.9	4.2	0.6
2. 工業	181	110	291	0.26	4.4	3.2	3.9	1.2
3. 製造業	145	103	248	0.22	4.4	3.2	3.9	1.2
4. 批發及零售業	72	76	148	0.13	3.9	3.4	3.6	0.5
5. 金融及保險業	14	23	37	0.03	6.7	6.1	6.3	0.6
6. 運輸、倉儲及通信業	22	10	32	0.03	4.8	3.9	4.5	0.9
7. 專業、科學及技術服務業	11	11	22	0.02	5.7	4.7	5.2	1.0
8. 醫療保健服務業	4	17	21	0.02	9.0	4.3	5.3	4.7

資料來源：行政院主計處

1114

受雇人數的合計：各行業的男女受雇人數之總和

受雇人數的比率：各行業的合計受雇人數除以八個行業的總受雇人數（共 1,114 萬人）

平均薪資的差異：各行業的男性受雇人員的平均薪資減女性受雇人員的平均薪資

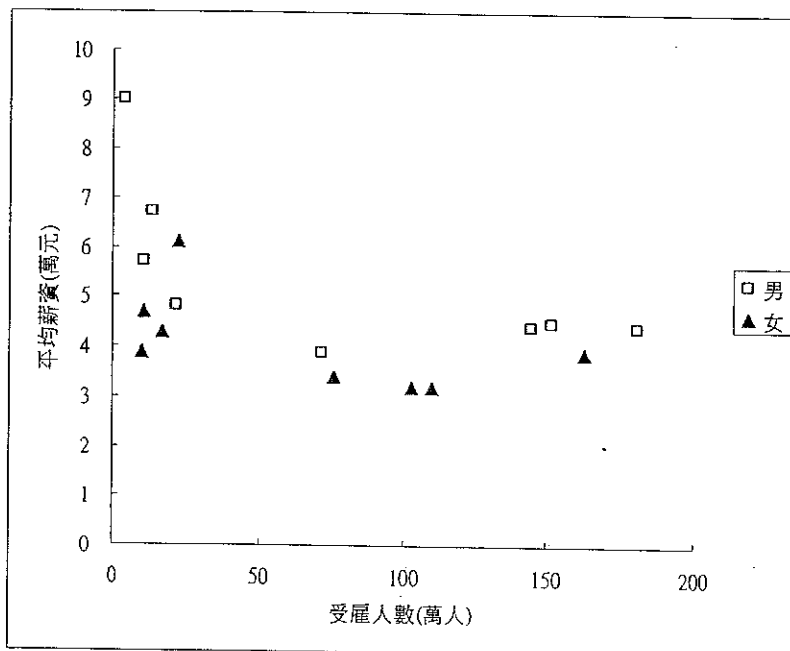
令  $x_i$  為編號  $i$  的行業之受雇人數，令  $\mu_{i1}$  為編號  $i$  的行業之所有(全國)男性受雇人員的平均薪資， $\mu_{i2}$  為編號  $i$  的行業之所有女性受雇人員的平均薪資，並令

$$\mu_D = \frac{\sum_{i=1}^8 (\mu_{i1} - \mu_{i2})}{8}, \mu_A = \frac{\sum_{i=1}^8 x_i (\mu_{i1} - \mu_{i2})}{\sum_{i=1}^8 x_i}$$

$\mu_D$  是各行業男女平均薪資差異的算術平均數，計算  $\mu_D$  時不受各行業受雇人數不同的影響； $\mu_A$  是各行業男女平均薪資差異的加權平均數，權數是各行業受雇人數占總受雇人數的比率。

1. 試求  $\mu_D$  的 95% 雙尾信賴區間(two-tailed confidence interval)，並解釋此信賴區間的意義。(25 分)
2. 計算  $\mu_D$  的 95% 信賴區間需要假設哪些條件？本問題之各行業男女平均薪資差異的資料是否符合所要求的條件？為什麼？(5 分)
3. 試討論如何以各行業受雇人數占總受雇人數的比率，調整  $\mu_D$  的 95% 信賴區間使成為  $\mu_A$  的信賴區間(只討論如何調整，不須代實際的資料計算)。如果  $\mu_A$  與  $\mu_D$  的信賴區間有明顯的不同時(例如，其中一個區間包含零，而另一個區間不包含零)，試問應選擇哪一個區間用以解釋男女平均薪資的差異情形？為什麼？(5 分)

二. 承上題(八個行業的受雇人數與平均薪資的推估資料)



1. 試根據受雇人數與平均薪資的分佈圖，討論此兩變數資料的分佈情形？  
(討論：男女資料的整體分佈形狀，以及男、女資料的個別分佈情形是否不同，有何不同, ...) (5分)
2. 表中所列的資料係抽樣調查的統計結果，就合計的部分而言，八個行業受雇人數與平均薪資兩個變數的相關係數為  $-0.7$ ，設若直接分析八個行業抽樣調查時每位受訪者的個別薪資與各行業受雇人數的相關情形，則所得到的相關程度(相關係數的絕對值)是否仍會是  $0.7$ ? 比較高還是比較低? 為什麼? (5分)
3. 試討論如果以受雇人數 ( $x_i$ ) 為解釋變數，用以預測平均薪資(反應變數  $y_i$ ) 的簡單迴歸模式分析此資料是否合適? 為什麼? 若不合適，試建議更合適的迴歸分析模式。(5分)

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1. (20 分) 某信用卡發卡銀行舉辦促銷活動，以簽帳單上的 6 碼授權碼(含 0)為準，尾碼為 8 回饋刷卡金額的  $1/100$ ，尾兩碼為 88 回饋刷卡金額的  $1/10$ ，尾三碼為 888 回饋刷卡金額的  $1/2$ ，尾四碼為 8888 刷卡金額全額回饋，尾五碼為 88888 回饋刷卡金額的 2 倍，授權碼為 888888 回饋刷卡金額的 10。假設授權碼隨機指定且不重複。
- (a) 請問中獎機率分配為何？(請分別列各種回饋倍數的中獎機率。)
- (b) 請問這樣的促銷活動下，平均每次刷卡每一元的預期(扣除刷卡回饋金)後淨營業額為何？

2. (30 分) 隨機抽出應屆畢業生大學或碩士共 55 名，調查顯示過去一年就業起薪平均數與標準差為

	樣本數	平均數	標準差
大學	30	24756	2350
碩士	25	31753	5462

假設起薪服從常態。

- (a) 某大學畢業生設定的目標為起薪二萬八千元以上的工作。該畢業生起薪符合他預期的機率為何？
- (b) 某碩士畢業生希望自己的起薪在全部碩士畢業生中居高薪前 1% 以上，請問他的起薪該定在多少以上？
- (c) 欲比較大學與碩士畢業生平均起薪是否相同，為了確定是否該採用合併的雙樣本  $t$  統計量，先檢定兩標準差是否相同，請問根據上述敘述性統計資料，在 5% 的顯著水準下你的建議是甚麼？
- (d) 根據 (c) 的建議，請以 1% 的顯著水準完成大學與碩士畢業生平均起薪是否相同的檢定。

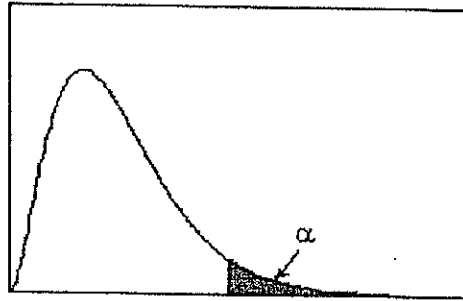
附表共 11 張。

可用計算機。



表2.卡方分配表

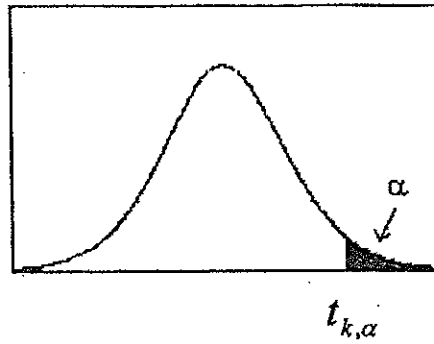
$$P(\chi_k^2 \geq \chi_{k,\alpha}^2) = \alpha$$



自由度	单尾显著水准							
	0.99	0.975	0.95	0.9	0.1	0.05	0.025	0.01
1	0.0002	0.0010	0.0039	0.0158	2.7055	3.8415	5.0239	6.6349
2	0.0201	0.0506	0.1026	0.2107	4.6052	5.9915	7.3778	9.2103
3	0.1148	0.2158	0.3518	0.5844	6.2514	7.8147	9.3484	11.3449
4	0.2971	0.4844	0.7107	1.0636	7.7794	9.4877	11.1433	13.2767
5	0.5543	0.8312	1.1455	1.6103	9.2364	11.0705	12.8325	15.0863
6	0.8721	1.2373	1.6354	2.2041	10.6446	12.5916	14.4494	16.8119
7	1.2390	1.6899	2.1674	2.8331	12.0170	14.0671	16.0128	18.4753
8	1.6465	2.1797	2.7326	3.4895	13.3616	15.5073	17.5346	20.0902
9	2.0879	2.7004	3.3251	4.1682	14.6837	16.9190	19.0228	21.6660
10	2.5582	3.2470	3.9403	4.8652	15.9872	18.3070	20.4831	23.2093
11	3.0535	3.8158	4.5748	5.5778	17.2750	19.6751	21.9200	24.7250
12	3.5706	4.4038	5.2260	6.3038	18.5494	21.0261	23.3367	26.2170
13	4.1069	5.0087	5.8919	7.0415	19.8119	22.3621	24.7356	27.6883
14	4.6604	5.6287	6.5706	7.7895	21.0642	23.6848	26.1190	29.1413
15	5.2294	6.2621	7.2609	8.5468	22.3072	24.9958	27.4884	30.5779
16	5.8122	6.9077	7.9616	9.3122	23.5418	26.2962	28.8454	31.9999
17	6.4078	7.5642	8.6718	10.0852	24.7690	27.5871	30.1910	33.4087
18	7.0149	8.2308	9.3905	10.8649	25.9894	28.8693	31.5264	34.8053
19	7.6327	8.9066	10.1170	11.6509	27.2036	30.1435	32.8523	36.1908
20	8.2604	9.5908	10.8508	12.4426	28.4120	31.4104	34.1696	37.5662
21	8.8972	10.2829	11.5913	13.2396	29.6151	32.6705	35.4789	38.9321
22	9.5425	10.9823	12.3380	14.0415	30.8133	33.9244	36.7807	40.2894
23	10.1957	11.6885	13.0905	14.8479	32.0069	35.1725	38.0757	41.6384
24	10.8564	12.4012	13.8484	15.6587	33.1963	36.4151	39.3641	42.9798
25	11.5240	13.1197	14.6114	16.4734	34.3816	37.6525	40.6465	44.3141
26	12.1981	13.8439	15.3791	17.2919	35.5631	38.8852	41.9232	45.6417
27	12.8786	14.5733	16.1513	18.1138	36.7412	40.1133	43.1944	46.9630
28	13.5648	15.3079	16.9279	18.9392	37.9159	41.3372	44.4607	48.2782
29	14.2565	16.0471	17.7083	19.7677	39.0875	42.5569	45.7222	49.5879
30	14.9535	16.7908	18.4926	20.5992	40.2560	43.7729	46.9792	50.8922
35	18.5089	20.5694	22.4650	24.7967	46.0588	49.8018	53.2033	57.3421
40	22.1643	24.4331	26.5093	29.0505	51.8050	55.7585	59.3417	63.6907
45	25.9013	28.3662	30.6123	33.3504	57.5053	61.6562	65.4102	69.9568
50	29.7067	32.3574	34.7642	37.6886	63.1671	67.5048	71.4202	76.1539
60	37.4849	40.4817	43.1879	46.4589	74.3970	79.0819	83.2976	88.3794
70	45.4418	48.7576	51.7393	55.3290	85.5271	90.5312	95.0231	100.4252
80	53.5400	57.1532	60.3915	64.2778	96.5782	101.8795	106.6286	112.3288
90	61.7541	65.6466	69.1260	73.2912	107.5650	113.1453	118.1359	124.1163
100	70.0648	74.2219	77.9295	82.3581	118.4980	124.3421	129.5612	135.8067
200	156.4320	162.7280	168.2786	174.8353	226.0210	233.9943	241.0579	249.4451
300	245.9725	253.9123	260.8781	269.0679	331.7885	341.3951	349.8745	359.9064
400	337.1553	346.4818	354.6410	364.2074	436.6490	447.6325	457.3055	468.7245
500	429.3875	439.9360	449.1468	459.9261	540.9303	553.1268	563.8515	576.4928

表3.  $t$ 分配表

$$P(t_k \geq t_{k,\alpha}) = \alpha$$

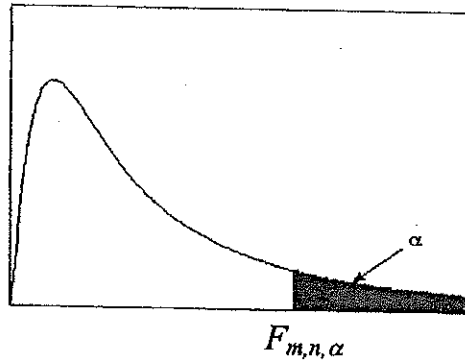


自由度	單尾顯著水準						
	0.1	0.05	0.025	0.01	0.005	0.0025	0.001
1	3.0777	6.3138	12.7062	31.8205	63.6567	127.3213	318.3088
2	1.8856	2.9200	4.3027	6.9646	9.9248	14.0890	22.3271
3	1.6377	2.3534	3.1824	4.5407	5.8409	7.4533	10.2145
4	1.5332	2.1318	2.7764	3.7469	4.6041	5.5976	7.1732
5	1.4759	2.0150	2.5706	3.3649	4.0321	4.7733	5.8934
6	1.4398	1.9432	2.4469	3.1427	3.7074	4.3168	5.2076
7	1.4149	1.8946	2.3646	2.9980	3.4995	4.0293	4.7853
8	1.3968	1.8595	2.3060	2.8965	3.3554	3.8325	4.5008
9	1.3830	1.8331	2.2622	2.8214	3.2498	3.6897	4.2968
10	1.3722	1.8125	2.2281	2.7638	3.1693	3.5814	4.1437
11	1.3634	1.7959	2.2010	2.7181	3.1058	3.4966	4.0247
12	1.3562	1.7823	2.1788	2.6810	3.0545	3.4284	3.9296
13	1.3502	1.7709	2.1604	2.6503	3.0123	3.3725	3.8520
14	1.3450	1.7613	2.1448	2.6245	2.9768	3.3257	3.7874
15	1.3406	1.7531	2.1314	2.6025	2.9467	3.2860	3.7328
16	1.3368	1.7459	2.1199	2.5835	2.9208	3.2520	3.6862
17	1.3334	1.7396	2.1098	2.5669	2.8982	3.2224	3.6458
18	1.3304	1.7341	2.1009	2.5524	2.8784	3.1966	3.6105
19	1.3277	1.7291	2.0930	2.5395	2.8609	3.1737	3.5794
20	1.3253	1.7247	2.0860	2.5280	2.8453	3.1534	3.5518
21	1.3232	1.7207	2.0796	2.5176	2.8314	3.1352	3.5272
22	1.3212	1.7171	2.0739	2.5083	2.8188	3.1188	3.5050
23	1.3195	1.7139	2.0687	2.4999	2.8073	3.1040	3.4850
24	1.3178	1.7109	2.0639	2.4922	2.7969	3.0905	3.4668
25	1.3163	1.7081	2.0595	2.4851	2.7874	3.0782	3.4502
26	1.3150	1.7056	2.0555	2.4786	2.7787	3.0669	3.4350
27	1.3137	1.7033	2.0518	2.4727	2.7707	3.0565	3.4210
28	1.3125	1.7011	2.0484	2.4671	2.7633	3.0469	3.4082
29	1.3114	1.6991	2.0452	2.4620	2.7564	3.0380	3.3962
30	1.3104	1.6973	2.0423	2.4573	2.7500	3.0298	3.3852
35	1.3062	1.6896	2.0301	2.4377	2.7238	2.9960	3.3400
40	1.3031	1.6839	2.0211	2.4233	2.7045	2.9712	3.3069
45	1.3006	1.6794	2.0141	2.4121	2.6896	2.9521	3.2815
50	1.2987	1.6759	2.0086	2.4033	2.6778	2.9370	3.2614
60	1.2958	1.6706	2.0003	2.3901	2.6603	2.9146	3.2317
70	1.2938	1.6669	1.9944	2.3808	2.6479	2.8987	3.2108
80	1.2922	1.6641	1.9901	2.3739	2.6387	2.8870	3.1953
90	1.2910	1.6620	1.9867	2.3685	2.6316	2.8779	3.1833
100	1.2901	1.6602	1.9840	2.3642	2.6259	2.8707	3.1737
200	1.2858	1.6525	1.9719	2.3451	2.6006	2.8385	3.1315
300	1.2844	1.6499	1.9679	2.3388	2.5923	2.8279	3.1176
400	1.2837	1.6487	1.9659	2.3357	2.5882	2.8227	3.1107
500	1.2832	1.6479	1.9647	2.3338	2.5857	2.8195	3.1066
600	1.2830	1.6474	1.9639	2.3326	2.5840	2.8175	3.1039
700	1.2828	1.6470	1.9634	2.3317	2.5829	2.8160	3.1019
800	1.2826	1.6468	1.9629	2.3310	2.5820	2.8148	3.1005
900	1.2825	1.6465	1.9626	2.3305	2.5813	2.8140	3.0993
1000	1.2824	1.6464	1.9623	2.3301	2.5808	2.8133	3.0984

表4.  $F$ 分配表(1)

(i)  $\alpha=0.1$

$$P(F_{m,n} \geq F_{m,n,\alpha}) = \alpha$$



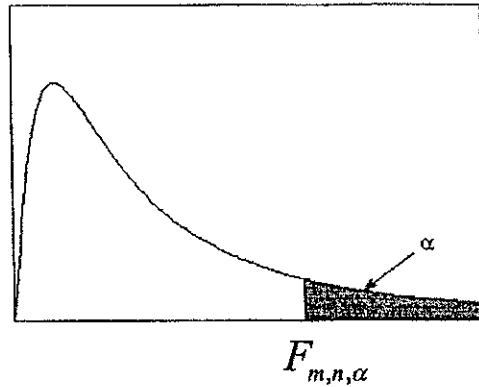
分母自由度  $n$

		分子自由度 $m$								
		1	2	3	4	5	6	7	8	9
1		39.8635	49.5000	53.5932	55.8330	57.2401	58.2044	58.9060	59.4390	59.8576
2		8.5263	9.0000	9.1618	9.2434	9.2926	9.3255	9.3491	9.3668	9.3805
3		5.5383	5.4624	5.3908	5.3426	5.3092	5.2847	5.2662	5.2517	5.2400
4		4.5448	4.3246	4.1909	4.1072	4.0506	4.0097	3.9790	3.9549	3.9357
5		4.0604	3.7797	3.6195	3.5202	3.4530	3.4045	3.3679	3.3393	3.3163
6		3.7759	3.4633	3.2888	3.1808	3.1075	3.0546	3.0145	2.9830	2.9577
7		3.5894	3.2574	3.0741	2.9605	2.8833	2.8274	2.7849	2.7516	2.7247
8		3.4579	3.1131	2.9238	2.8064	2.7264	2.6683	2.6241	2.5893	2.5612
9		3.3603	3.0065	2.8129	2.6927	2.6106	2.5509	2.5053	2.4694	2.4403
10		3.2850	2.9245	2.7277	2.6053	2.5216	2.4606	2.4140	2.3772	2.3473
11		3.2252	2.859	2.6602	2.5362	2.4512	2.3891	2.3416	2.3040	2.2735
12		3.1765	2.8068	2.6055	2.4801	2.3940	2.3310	2.2828	2.2446	2.2135
13		3.1362	2.7632	2.5603	2.4337	2.3467	2.2830	2.2341	2.1953	2.1638
14		3.1022	2.7265	2.5222	2.3947	2.3069	2.2426	2.1931	2.1539	2.1220
15		3.0732	2.6952	2.4898	2.3614	2.2730	2.2081	2.1582	2.1185	2.0862
16		3.0481	2.6682	2.4618	2.3327	2.2438	2.1783	2.1280	2.0880	2.0553
17		3.0262	2.6446	2.4374	2.3077	2.2183	2.1524	2.1017	2.0613	2.0284
18		3.0070	2.6239	2.4160	2.2858	2.1958	2.1296	2.0785	2.0379	2.0047
19		2.9899	2.6056	2.3970	2.2663	2.1760	2.1094	2.0580	2.0171	1.9836
20		2.9747	2.5893	2.3801	2.2489	2.1582	2.0913	2.0397	1.9985	1.9649
21		2.9610	2.5746	2.3649	2.2333	2.1423	2.0751	2.0233	1.9819	1.9480
22		2.9486	2.5613	2.3512	2.2193	2.1279	2.0605	2.0084	1.9668	1.9327
23		2.9374	2.5493	2.3387	2.2065	2.1149	2.0472	1.9949	1.9531	1.9189
24		2.9271	2.5383	2.3274	2.1949	2.1030	2.0351	1.9826	1.9407	1.9063
25		2.9177	2.5283	2.3170	2.1842	2.0922	2.0241	1.9714	1.9292	1.8947
26		2.9091	2.5191	2.3075	2.1745	2.0822	2.0139	1.9610	1.9188	1.8841
27		2.9012	2.5106	2.2987	2.1655	2.0730	2.0045	1.9515	1.9091	1.8743
28		2.8938	2.5028	2.2906	2.1571	2.0645	1.9959	1.9427	1.9001	1.8652
29		2.8870	2.4955	2.2831	2.1494	2.0566	1.9878	1.9345	1.8918	1.8568
30		2.8807	2.4887	2.2761	2.1422	2.0492	1.9803	1.9269	1.8841	1.8490
35		2.8547	2.4609	2.2474	2.1128	2.0191	1.9496	1.8957	1.8524	1.8168
40		2.8354	2.4404	2.2261	2.0909	1.9968	1.9269	1.8725	1.8289	1.7929
45		2.8205	2.4245	2.2097	2.0742	1.9796	1.9094	1.8547	1.8107	1.7745
50		2.8087	2.4120	2.1967	2.0608	1.9660	1.8954	1.8405	1.7963	1.7598
60		2.7911	2.3933	2.1774	2.0410	1.9457	1.8747	1.8194	1.7748	1.7380
70		2.7786	2.3800	2.1637	2.0269	1.9313	1.8600	1.8044	1.7596	1.7225
80		2.7693	2.3701	2.1535	2.0165	1.9206	1.8491	1.7933	1.7483	1.7110
90		2.7621	2.3625	2.1457	2.0084	1.9123	1.8406	1.7846	1.7395	1.7021
100		2.7564	2.3564	2.1394	2.0019	1.9057	1.8339	1.7778	1.7324	1.6949
120		2.7478	2.3473	2.1300	1.9923	1.8959	1.8238	1.7675	1.7220	1.6842

表4.  $F$ 分配表(續2)

(i)  $\alpha = 0.1$

$$P(F_{m,n} \geq F_{m,n,\alpha}) = \alpha$$



分母  
自  
由  
度  
 $n$

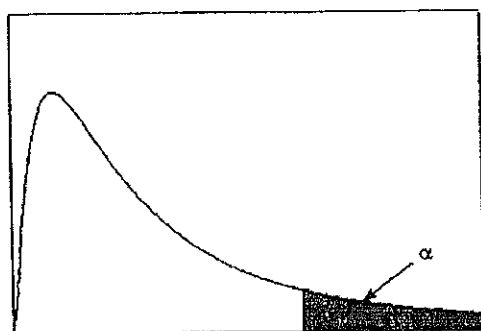
		分子自由度 $m$								
		10	12	15	20	24	30	40	60	120
1		60.195	60.7052	61.2203	61.7403	62.0020	62.2650	62.5291	62.7943	63.0606
2		9.3916	9.4081	9.4247	9.4413	9.4496	9.4579	9.4662	9.4746	9.4829
3		5.2304	5.2156	5.2003	5.1845	5.1764	5.1681	5.1597	5.1512	5.1425
4		3.9199	3.8955	3.8704	3.8443	3.8310	3.8174	3.8036	3.7896	3.7753
5		3.2974	3.2682	3.2380	3.2067	3.1905	3.1741	3.1573	3.1402	3.1228
6		2.9369	2.9047	2.8712	2.8363	2.8183	2.8000	2.7812	2.7620	2.7423
7		2.7025	2.6681	2.6322	2.5947	2.5753	2.5555	2.5351	2.5142	2.4928
8		2.5380	2.5020	2.4642	2.4246	2.4041	2.3830	2.3614	2.3391	2.3162
9		2.4163	2.3789	2.3396	2.2983	2.2768	2.2547	2.2320	2.2085	2.1843
10		2.3226	2.2841	2.2435	2.2007	2.1784	2.1554	2.1317	2.1072	2.0818
11		2.2482	2.2087	2.1671	2.1230	2.1000	2.0762	2.0516	2.0261	1.9997
12		2.1878	2.1474	2.1049	2.0597	2.0360	2.0115	1.9861	1.9597	1.9323
13		2.1376	2.0966	2.0532	2.0070	1.9827	1.9576	1.9315	1.9043	1.8759
14		2.0954	2.0537	2.0095	1.9625	1.9377	1.9119	1.8852	1.8572	1.8280
15		2.0593	2.0171	1.9722	1.9243	1.8990	1.8728	1.8454	1.8168	1.7867
16		2.0281	1.9854	1.9399	1.8913	1.8656	1.8388	1.8108	1.7816	1.7507
17		2.0009	1.9577	1.9117	1.8624	1.8362	1.8090	1.7805	1.7506	1.7191
18		1.9770	1.9333	1.8868	1.8368	1.8103	1.7827	1.7537	1.7232	1.6910
19		1.9557	1.9117	1.8647	1.8142	1.7873	1.7592	1.7298	1.6988	1.6659
20		1.9367	1.8924	1.8449	1.7938	1.7667	1.7382	1.7083	1.6768	1.6433
21		1.9197	1.8750	1.8271	1.7756	1.7481	1.7193	1.6890	1.6569	1.6228
22		1.9043	1.8593	1.8111	1.7590	1.7312	1.7021	1.6714	1.6389	1.6041
23		1.8903	1.8450	1.7964	1.7439	1.7159	1.6864	1.6554	1.6224	1.5871
24		1.8775	1.8319	1.7831	1.7302	1.7019	1.6721	1.6407	1.6073	1.5715
25		1.8658	1.8200	1.7708	1.7175	1.6890	1.6589	1.6272	1.5934	1.5570
26		1.8550	1.8090	1.7596	1.7059	1.6771	1.6468	1.6147	1.5805	1.5437
27		1.8451	1.7989	1.7492	1.6951	1.6662	1.6356	1.6032	1.5686	1.5313
28		1.8359	1.7895	1.7395	1.6852	1.6560	1.6252	1.5925	1.5575	1.5198
29		1.8274	1.7808	1.7306	1.6759	1.6465	1.6155	1.5825	1.5472	1.5090
30		1.8195	1.7727	1.7223	1.6673	1.6377	1.6065	1.5732	1.5376	1.4989
35		1.7869	1.7394	1.6880	1.6317	1.6013	1.5691	1.5346	1.4975	1.4568
40		1.7627	1.7146	1.6624	1.6052	1.5741	1.5411	1.5056	1.4672	1.4248
45		1.7440	1.6954	1.6426	1.5846	1.5530	1.5193	1.4830	1.4434	1.3995
50		1.7291	1.6802	1.6269	1.5681	1.5361	1.5018	1.4648	1.4242	1.3789
60		1.7070	1.6574	1.6034	1.5435	1.5107	1.4755	1.4373	1.3952	1.3476
70		1.6913	1.6413	1.5866	1.5259	1.4926	1.4567	1.4176	1.3742	1.3246
80		1.6796	1.6292	1.5741	1.5128	1.4790	1.4426	1.4027	1.3583	1.3071
90		1.6705	1.6199	1.5644	1.5025	1.4684	1.4315	1.3911	1.3457	1.2932
100		1.6632	1.6124	1.5566	1.4943	1.4600	1.4227	1.3817	1.3356	1.2819
120		1.6524	1.6012	1.5450	1.4821	1.4472	1.4094	1.3676	1.3203	1.2646



表4.  $F$ 分配表(續3)

(ii)  $\alpha = 0.05$

$$P(F_{m,n} \geq F_{m,n,\alpha}) = \alpha$$



$F_{m,n,\alpha}$

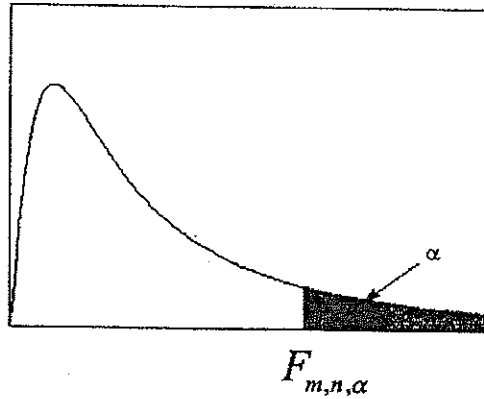
分母自由度  $n$

		分子自由度 $m$								
		1	2	3	4	5	6	7	8	9
1	161.448	199.500	215.707	224.583	230.162	233.986	236.768	238.883	240.543	
2	18.5128	19.0000	19.1643	19.2468	19.2964	19.3295	19.3532	19.3710	19.3848	
3	10.1280	9.5521	9.2766	9.1172	9.0135	8.9406	8.8867	8.8452	8.8123	
4	7.7086	6.9443	6.5914	6.3882	6.2561	6.1631	6.0942	6.0410	5.9988	
5	6.6079	5.7861	5.4095	5.1922	5.0503	4.9503	4.8759	4.8183	4.7725	
6	5.9874	5.1433	4.7571	4.5337	4.3874	4.2839	4.2067	4.1468	4.0990	
7	5.5914	4.7374	4.3468	4.1203	3.9715	3.8660	3.7870	3.7257	3.6767	
8	5.3177	4.4590	4.0662	3.8379	3.6875	3.5806	3.5005	3.4381	3.3881	
9	5.1174	4.2565	3.8625	3.6331	3.4817	3.3738	3.2927	3.2296	3.1789	
10	4.9646	4.1028	3.7083	3.4780	3.3258	3.2172	3.1355	3.0717	3.0204	
11	4.8443	3.9823	3.5874	3.3567	3.2039	3.0946	3.0123	2.9480	2.8962	
12	4.7472	3.8853	3.4903	3.2592	3.1059	2.9961	2.9134	2.8486	2.7964	
13	4.6672	3.8056	3.4105	3.1791	3.0254	2.9153	2.8321	2.7669	2.7144	
14	4.6001	3.7389	3.3439	3.1122	2.9582	2.8477	2.7642	2.6987	2.6458	
15	4.5431	3.6823	3.2874	3.0556	2.9013	2.7905	2.7066	2.6408	2.5876	
16	4.4940	3.6337	3.2389	3.0069	2.8524	2.7413	2.6572	2.5911	2.5377	
17	4.4513	3.5915	3.1968	2.9647	2.8100	2.6987	2.6143	2.5480	2.4943	
18	4.4139	3.5546	3.1599	2.9277	2.7729	2.6613	2.5767	2.5102	2.4563	
19	4.3807	3.5219	3.1274	2.8951	2.7401	2.6283	2.5435	2.4768	2.4227	
20	4.3512	3.4928	3.0984	2.8661	2.7109	2.5990	2.5140	2.4471	2.3928	
21	4.3248	3.4668	3.0725	2.8401	2.6848	2.5727	2.4876	2.4205	2.3660	
22	4.3009	3.4434	3.0491	2.8167	2.6613	2.5491	2.4638	2.3965	2.3419	
23	4.2793	3.4221	3.0280	2.7955	2.6400	2.5277	2.4422	2.3748	2.3201	
24	4.2597	3.4028	3.0088	2.7763	2.6207	2.5082	2.4226	2.3551	2.3002	
25	4.2417	3.3852	2.9912	2.7587	2.6030	2.4904	2.4047	2.3371	2.2821	
26	4.2252	3.3690	2.9752	2.7426	2.5868	2.4741	2.3883	2.3205	2.2655	
27	4.2100	3.3541	2.9604	2.7278	2.5719	2.4591	2.3732	2.3053	2.2501	
28	4.1960	3.3404	2.9467	2.7141	2.5581	2.4453	2.3593	2.2913	2.2360	
29	4.1830	3.3277	2.9340	2.7014	2.5454	2.4324	2.3463	2.2783	2.2229	
30	4.1709	3.3158	2.9223	2.6896	2.5336	2.4205	2.3343	2.2662	2.2107	
35	4.1213	3.2674	2.8742	2.6415	2.4851	2.3718	2.2852	2.2167	2.1608	
40	4.0847	3.2317	2.8387	2.6060	2.4495	2.3359	2.2490	2.1802	2.1240	
45	4.0566	3.2043	2.8115	2.5787	2.4221	2.3083	2.2212	2.1521	2.0958	
50	4.0343	3.1826	2.7900	2.5572	2.4004	2.2864	2.1992	2.1299	2.0734	
60	4.0012	3.1504	2.7581	2.5252	2.3683	2.2541	2.1665	2.0970	2.0401	
70	3.9778	3.1277	2.7355	2.5027	2.3456	2.2312	2.1435	2.0737	2.0166	
80	3.9604	3.1108	2.7188	2.4859	2.3287	2.2142	2.1263	2.0564	1.9991	
90	3.9469	3.0977	2.7058	2.4729	2.3157	2.2011	2.1131	2.0430	1.9856	
100	3.9361	3.0873	2.6955	2.4626	2.3053	2.1906	2.1025	2.0323	1.9748	
120	3.9201	3.0718	2.6802	2.4472	2.2899	2.1750	2.0868	2.0164	1.9588	

表4.  $F$ 分配表(續4)

(ii)  $\alpha = 0.05$

$$P(F_{m,n} \geq F_{m,n,\alpha}) = \alpha$$



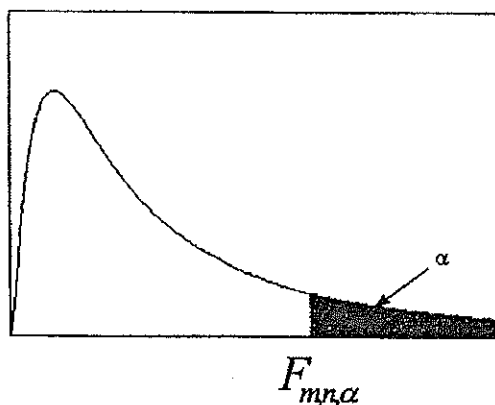
分母  
自由  
度  
 $n$

	分子自由度 $m$								
	10	12	15	20	24	30	40	60	120
1	241.88	243.906	245.950	248.013	249.052	250.095	251.143	252.196	253.253
2	19.3959	19.4125	19.4291	19.4458	19.4541	19.4624	19.4707	19.4791	19.4874
3	8.7855	8.7446	8.7029	8.6602	8.6385	8.6166	8.5944	8.5720	8.5494
4	5.9644	5.9117	5.8578	5.8025	5.7744	5.7459	5.7170	5.6877	5.6581
5	4.7351	4.6777	4.6188	4.5581	4.5272	4.4957	4.4638	4.4314	4.3985
6	4.0600	3.9999	3.9381	3.8742	3.8415	3.8082	3.7743	3.7398	3.7047
7	3.6365	3.5747	3.5107	3.4445	3.4105	3.3758	3.3404	3.3043	3.2674
8	3.3472	3.2839	3.2184	3.1503	3.1152	3.0794	3.0428	3.0053	2.9669
9	3.1373	3.0729	3.0061	2.9365	2.9005	2.8637	2.8259	2.7872	2.7475
10	2.9782	2.9130	2.8450	2.7740	2.7372	2.6996	2.6609	2.6211	2.5801
11	2.8536	2.7876	2.7186	2.6464	2.6090	2.5705	2.5309	2.4901	2.4480
12	2.7534	2.6866	2.6169	2.5436	2.5055	2.4663	2.4259	2.3842	2.3410
13	2.6710	2.6037	2.5331	2.4589	2.4202	2.3803	2.3392	2.2966	2.2524
14	2.6022	2.5342	2.4630	2.3879	2.3487	2.3082	2.2664	2.2229	2.1778
15	2.5437	2.4753	2.4034	2.3275	2.2878	2.2468	2.2043	2.1601	2.1141
16	2.4935	2.4247	2.3522	2.2756	2.2354	2.1938	2.1507	2.1058	2.0589
17	2.4499	2.3807	2.3077	2.2304	2.1898	2.1477	2.1040	2.0584	2.0107
18	2.4117	2.3421	2.2686	2.1906	2.1497	2.1071	2.0629	2.0166	1.9681
19	2.3779	2.3080	2.2341	2.1555	2.1141	2.0712	2.0264	1.9795	1.9302
20	2.3479	2.2776	2.2033	2.1242	2.0825	2.0391	1.9938	1.9464	1.8963
21	2.3210	2.2504	2.1757	2.0960	2.0540	2.0102	1.9645	1.9165	1.8657
22	2.2967	2.2258	2.1508	2.0707	2.0283	1.9842	1.9380	1.8894	1.8380
23	2.2747	2.2036	2.1282	2.0476	2.0050	1.9605	1.9139	1.8648	1.8128
24	2.2547	2.1834	2.1077	2.0267	1.9838	1.9390	1.8920	1.8424	1.7896
25	2.2365	2.1649	2.0889	2.0075	1.9643	1.9192	1.8718	1.8217	1.7684
26	2.2197	2.1479	2.0716	1.9898	1.9464	1.9010	1.8533	1.8027	1.7488
27	2.2043	2.1323	2.0558	1.9736	1.9299	1.8842	1.8361	1.7851	1.7306
28	2.1900	2.1179	2.0411	1.9586	1.9147	1.8687	1.8203	1.7689	1.7138
29	2.1768	2.1045	2.0275	1.9446	1.9005	1.8543	1.8055	1.7537	1.6981
30	2.1646	2.0921	2.0148	1.9317	1.8874	1.8409	1.7918	1.7396	1.6835
35	2.1143	2.0411	1.9629	1.8784	1.8332	1.7856	1.7351	1.6811	1.6226
40	2.0772	2.0035	1.9245	1.8389	1.7929	1.7444	1.6928	1.6373	1.5766
45	2.0487	1.9745	1.8949	1.8084	1.7618	1.7126	1.6599	1.6031	1.5406
50	2.0261	1.9515	1.8714	1.7841	1.7371	1.6872	1.6337	1.5757	1.5115
60	1.9926	1.9174	1.8364	1.7480	1.7001	1.6491	1.5943	1.5343	1.4673
70	1.9689	1.8932	1.8117	1.7223	1.6738	1.6220	1.5661	1.5046	1.4351
80	1.9512	1.8753	1.7932	1.7032	1.6542	1.6017	1.5449	1.4821	1.4107
90	1.9376	1.8613	1.7789	1.6883	1.6389	1.5859	1.5284	1.4645	1.3914
100	1.9267	1.8503	1.7675	1.6764	1.6267	1.5733	1.5151	1.4504	1.3757
120	1.9105	1.8337	1.7505	1.6587	1.6084	1.5543	1.4952	1.4290	1.3519

表4.  $F$ 分配表(續5)

(iii)  $\alpha = 0.025$

$$P(F_{m,n} \geq F_{m,n,\alpha}) = \alpha$$



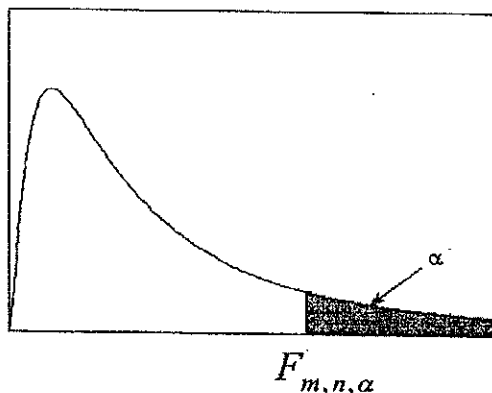
分  
母  
自  
由  
度  
 $n$

	分子自由度 $m$								
	1	2	3	4	5	6	7	8	9
1	647.789	799.500	864.163	899.583	921.848	937.111	948.217	956.656	963.287
2	38.5063	39.0000	39.1655	39.2484	39.2982	39.3315	39.3552	39.3730	39.3869
3	17.4434	16.0441	15.4392	15.1010	14.8848	14.7347	14.6244	14.5399	14.4731
4	12.2179	10.6491	9.9792	9.6045	9.3645	9.1973	9.0741	8.9796	8.9047
5	10.007	8.4336	7.7636	7.3879	7.1464	6.9777	6.8531	6.7572	6.6811
6	8.8131	7.2599	6.5988	6.2272	5.9876	5.8198	5.6955	5.5996	5.5234
7	8.0727	6.5415	5.8898	5.5226	5.2852	5.1186	4.9949	4.8993	4.823
8	7.5709	6.0595	5.4160	5.0526	4.8173	4.6517	4.5286	4.4333	4.3572
9	7.2093	5.7147	5.0781	4.7181	4.4844	4.3197	4.1970	4.1020	4.0260
10	6.9367	5.4564	4.8256	4.4683	4.2361	4.0721	3.9498	3.8549	3.7790
11	6.7241	5.2559	4.6300	4.2751	4.0440	3.8807	3.7586	3.6638	3.5879
12	6.5538	5.0959	4.4742	4.1212	3.8911	3.7283	3.6065	3.5118	3.4358
13	6.4143	4.9653	4.3472	3.9959	3.7667	3.6043	3.4827	3.3880	3.3120
14	6.2979	4.8567	4.2417	3.8919	3.6634	3.5014	3.3799	3.2853	3.2093
15	6.1995	4.7650	4.1528	3.8043	3.5764	3.4147	3.2934	3.1987	3.1227
16	6.1151	4.6867	4.0768	3.7294	3.5021	3.3406	3.2194	3.1248	3.0488
17	6.0420	4.6189	4.0112	3.6648	3.4379	3.2767	3.1556	3.0610	2.9849
18	5.9781	4.5597	3.9539	3.6083	3.3820	3.2209	3.0999	3.0053	2.9291
19	5.9216	4.5075	3.9034	3.5587	3.3327	3.1718	3.0509	2.9563	2.8801
20	5.8715	4.4613	3.8587	3.5147	3.2891	3.1283	3.0074	2.9128	2.8365
21	5.8266	4.4199	3.8188	3.4754	3.2501	3.0895	2.9686	2.8740	2.7977
22	5.7863	4.3828	3.7829	3.4401	3.2151	3.0546	2.9338	2.8392	2.7628
23	5.7498	4.3492	3.7505	3.4083	3.1835	3.0232	2.9023	2.8077	2.7313
24	5.7166	4.3187	3.7211	3.3794	3.1548	2.9946	2.8738	2.7791	2.7027
25	5.6864	4.2909	3.6943	3.3530	3.1287	2.9685	2.8478	2.7531	2.6766
26	5.6586	4.2655	3.6697	3.3289	3.1048	2.9447	2.8240	2.7293	2.6528
27	5.6331	4.2421	3.6472	3.3067	3.0828	2.9228	2.8021	2.7074	2.6309
28	5.6096	4.2205	3.6264	3.2863	3.0626	2.9027	2.7820	2.6872	2.6106
29	5.5878	4.2006	3.6072	3.2674	3.0438	2.8840	2.7633	2.6686	2.5919
30	5.5675	4.1821	3.5894	3.2499	3.0265	2.8667	2.7460	2.6513	2.5746
35	5.4848	4.1065	3.5166	3.1785	2.9557	2.7961	2.6755	2.5807	2.5039
40	5.4239	4.0510	3.4633	3.1261	2.9037	2.7444	2.6238	2.5289	2.4519
45	5.3773	4.0085	3.4224	3.0860	2.8640	2.7048	2.5842	2.4892	2.4122
50	5.3403	3.9749	3.3902	3.0544	2.8327	2.6736	2.5530	2.4579	2.3808
60	5.2856	3.9253	3.3425	3.0077	2.7863	2.6274	2.5068	2.4117	2.3344
70	5.2470	3.8903	3.3090	2.9748	2.7537	2.5949	2.4743	2.3791	2.3017
80	5.2184	3.8643	3.2841	2.9504	2.7295	2.5708	2.4502	2.3549	2.2775
90	5.1962	3.8443	3.2649	2.9315	2.7109	2.5522	2.4316	2.3363	2.2588
100	5.1786	3.8284	3.2496	2.9166	2.6961	2.5374	2.4168	2.3215	2.2439
120	5.1523	3.8046	3.2269	2.8943	2.6740	2.5154	2.3948	2.2994	2.2217

表4.  $F$ 分配表(續6)

(iii)  $\alpha = 0.025$

$$P(F_{m,n} \geq F_{m,n,\alpha}) = \alpha$$



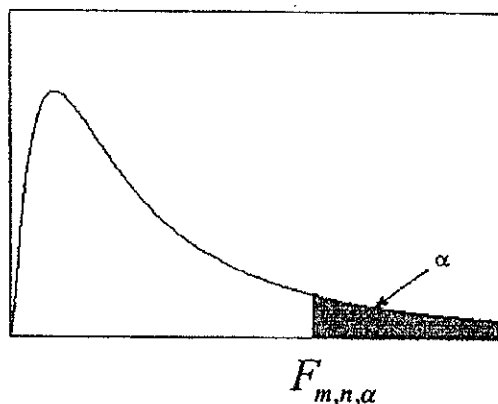
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		分子自由 度 m								
		10	12	15	20	24	30	40	60	120
1		968.63	976.71	984.87	993.10	997.25	1001.41	1005.60	1009.80	1014.02
2		39.3980	39.4146	39.4313	39.4479	39.4562	39.4646	39.4729	39.4812	39.4896
3		14.4189	14.3366	14.2527	14.1674	14.1241	14.0805	14.0365	13.9921	13.9473
4		8.8439	8.7512	8.6565	8.5599	8.5109	8.4613	8.4111	8.3604	8.3092
5		6.6192	6.5245	6.4277	6.3286	6.2780	6.2269	6.1750	6.1225	6.0693
6		5.4613	5.3662	5.2687	5.1684	5.1172	5.0652	5.0125	4.9589	4.9044
7		4.7611	4.6658	4.5678	4.4667	4.4150	4.3624	4.3089	4.2544	4.1989
8		4.2951	4.1997	4.1012	3.9995	3.9472	3.8940	3.8398	3.7844	3.7279
9		3.9639	3.8682	3.7694	3.6669	3.6142	3.5604	3.5055	3.4493	3.3918
10		3.7168	3.6209	3.5217	3.4185	3.3654	3.3110	3.2554	3.1984	3.1399
11		3.5257	3.4296	3.3299	3.2261	3.1725	3.1176	3.0613	3.0035	2.9441
12		3.3736	3.2773	3.1772	3.0728	3.0187	2.9633	2.9063	2.8478	2.7874
13		3.2497	3.1532	3.0527	2.9477	2.8932	2.8372	2.7797	2.7204	2.6590
14		3.1469	3.0502	2.9493	2.8437	2.7888	2.7324	2.6742	2.6142	2.5519
15		3.0602	2.9633	2.8621	2.7559	2.7006	2.6437	2.5850	2.5242	2.4611
16		2.9862	2.8890	2.7875	2.6808	2.6252	2.5678	2.5085	2.4471	2.3831
17		2.9222	2.8249	2.7230	2.6158	2.5598	2.5020	2.4422	2.3801	2.3153
18		2.8664	2.7689	2.6667	2.5590	2.5027	2.4445	2.3842	2.3214	2.2558
19		2.8172	2.7196	2.6171	2.5089	2.4523	2.3937	2.3329	2.2696	2.2032
20		2.7737	2.6758	2.5731	2.4645	2.4076	2.3486	2.2873	2.2234	2.1562
21		2.7348	2.6368	2.5338	2.4247	2.3675	2.3082	2.2465	2.1819	2.1141
22		2.6998	2.6017	2.4984	2.3890	2.3315	2.2718	2.2097	2.1446	2.0760
23		2.6682	2.5699	2.4665	2.3567	2.2989	2.2389	2.1763	2.1107	2.0415
24		2.6396	2.5411	2.4374	2.3273	2.2693	2.2090	2.1460	2.0799	2.0099
25		2.6135	2.5149	2.4110	2.3005	2.2422	2.1816	2.1183	2.0516	1.9811
26		2.5896	2.4908	2.3867	2.2759	2.2174	2.1565	2.0928	2.0257	1.9545
27		2.5676	2.4688	2.3644	2.2533	2.1946	2.1334	2.0693	2.0018	1.9299
28		2.5473	2.4484	2.3438	2.2324	2.1735	2.1121	2.0477	1.9797	1.9072
29		2.5286	2.4295	2.3248	2.2131	2.1540	2.0923	2.0276	1.9591	1.8861
30		2.5112	2.4120	2.3072	2.1952	2.1359	2.0739	2.0089	1.9400	1.8664
35		2.4403	2.3406	2.2350	2.1218	2.0617	1.9986	1.9321	1.8613	1.7851
40		2.3882	2.2882	2.1819	2.0677	2.0069	1.9429	1.8752	1.8028	1.7242
45		2.3483	2.2480	2.1412	2.0262	1.9647	1.9000	1.8313	1.7574	1.6767
50		2.3168	2.2162	2.1090	1.9933	1.9313	1.8659	1.7963	1.7211	1.6386
60		2.2702	2.1692	2.0613	1.9445	1.8817	1.8152	1.7440	1.6668	1.5810
70		2.2374	2.1361	2.0277	1.9100	1.8466	1.7792	1.7069	1.6279	1.5394
80		2.2130	2.1115	2.0026	1.8843	1.8204	1.7523	1.6790	1.5987	1.5079
90		2.1942	2.0925	1.9833	1.8644	1.8001	1.7315	1.6574	1.5758	1.4831
100		2.1793	2.0773	1.9679	1.8486	1.7839	1.7148	1.6401	1.5575	1.4631
120		2.1570	2.0548	1.9450	1.8249	1.7597	1.6899	1.6141	1.5299	1.4327

表4.  $F$ 分配表(續7)

(iv)  $\alpha = 0.01$

$$P(F_{m,n} \geq F_{m,n,\alpha}) = \alpha$$



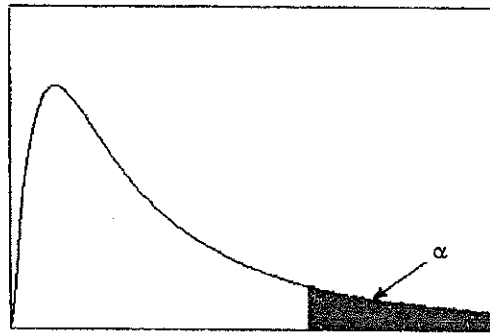
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	分子自由度 $m$								
	1	2	3	4	5	6	7	8	9
1	4052.18	4999.50	5403.35	5624.58	5763.65	5858.99	5928.36	5981.07	6022.47
2	98.5025	99.0000	99.1662	99.2494	99.2993	99.3326	99.3564	99.3742	99.3881
3	34.1162	30.8165	29.4567	28.7099	28.2371	27.9107	27.6717	27.4892	27.3452
4	21.1977	18.0000	16.6944	15.9770	15.5219	15.2069	14.9758	14.7989	14.6591
5	16.2582	13.2739	12.0600	11.3919	10.9670	10.6723	10.4555	10.2893	10.1578
6	13.7450	10.9248	9.7795	9.1483	8.7459	8.4661	8.2600	8.1017	7.9761
7	12.2464	9.5466	8.4513	7.8466	7.4604	7.1914	6.9928	6.8400	6.7188
8	11.2586	8.6491	7.5910	7.0061	6.6318	6.3707	6.1776	6.0289	5.9106
9	10.5614	8.0215	6.9919	6.4221	6.0569	5.8018	5.6129	5.4671	5.3511
10	10.0443	7.5594	6.5523	5.9943	5.6363	5.3858	5.2001	5.0567	4.9424
11	9.6460	7.2057	6.2167	5.6683	5.3160	5.0692	4.8861	4.7445	4.6315
12	9.3302	6.9266	5.9525	5.4120	5.0643	4.8206	4.6395	4.4994	4.3875
13	9.0738	6.7010	5.7394	5.2053	4.8616	4.6204	4.4410	4.3021	4.1911
14	8.8616	6.5149	5.5639	5.0354	4.6950	4.4558	4.2779	4.1399	4.0297
15	8.6831	6.3589	5.4170	4.8932	4.5556	4.3183	4.1415	4.0045	3.8948
16	8.5310	6.2262	5.2922	4.7726	4.4374	4.2016	4.0259	3.8896	3.7804
17	8.3997	6.1121	5.1850	4.6690	4.3359	4.1015	3.9267	3.7910	3.6822
18	8.2854	6.0129	5.0919	4.5790	4.2479	4.0146	3.8406	3.7054	3.5971
19	8.1849	5.9259	5.0103	4.5003	4.1708	3.9386	3.7653	3.6305	3.5225
20	8.0960	5.8489	4.9382	4.4307	4.1027	3.8714	3.6987	3.5644	3.4567
21	8.0166	5.7804	4.8740	4.3688	4.0421	3.8117	3.6396	3.5056	3.3981
22	7.9454	5.7190	4.8166	4.3134	3.9880	3.7583	3.5867	3.4530	3.3458
23	7.8811	5.6637	4.7649	4.2636	3.9392	3.7102	3.5390	3.4057	3.2986
24	7.8229	5.6136	4.7181	4.2184	3.8951	3.6667	3.4959	3.3629	3.2560
25	7.7698	5.5680	4.6755	4.1774	3.8550	3.6272	3.4568	3.3239	3.2172
26	7.7213	5.5263	4.6366	4.1400	3.8183	3.5911	3.4210	3.2884	3.1818
27	7.6767	5.4881	4.6009	4.1056	3.7848	3.5580	3.3882	3.2558	3.1494
28	7.6356	5.4529	4.5681	4.0740	3.7539	3.5276	3.3581	3.2259	3.1195
29	7.5977	5.4204	4.5378	4.0449	3.7254	3.4995	3.3303	3.1982	3.0920
30	7.5625	5.3903	4.5097	4.0179	3.6990	3.4735	3.3045	3.1726	3.0665
35	7.4191	5.2679	4.3957	3.9082	3.5919	3.3679	3.2000	3.0687	2.9630
40	7.3141	5.1785	4.3126	3.8283	3.5138	3.2910	3.1238	2.9930	2.8876
45	7.2339	5.1103	4.2492	3.7674	3.4544	3.2325	3.0658	2.9353	2.8301
50	7.1706	5.0566	4.1993	3.7195	3.4077	3.1864	3.0202	2.8900	2.7850
60	7.0771	4.9774	4.1259	3.6490	3.3389	3.1187	2.9530	2.8233	2.7185
70	7.0114	4.9219	4.0744	3.5996	3.2907	3.0712	2.9060	2.7765	2.6719
80	6.9627	4.8807	4.0363	3.5631	3.2550	3.0361	2.8713	2.7420	2.6374
90	6.9251	4.8491	4.0070	3.5350	3.2276	3.0091	2.8445	2.7154	2.6109
100	6.8953	4.8239	3.9837	3.5127	3.2059	2.9877	2.8233	2.6943	2.5898
120	6.8509	4.7865	3.9491	3.4795	3.1735	2.9559	2.7918	2.6629	2.5586

表4.  $F$ 分配表(續8)

(iv)  $\alpha = 0.01$

$$P(F_{m,n} \geq F_{m,n,\alpha}) = \alpha$$



$F_{m,n,\alpha}$

	分子自由度 m								
	10	12	15	20	24	30	40	60	120
1	6055.85	6106.32	6157.29	6208.73	6234.63	6260.65	6286.78	6313.03	6339.39
2	99.399	99.4159	99.4325	99.4492	99.4575	99.4658	99.4742	99.4825	99.4908
3	27.2287	27.0518	26.8722	26.6898	26.5975	26.5045	26.4108	26.3164	26.2211
4	14.5459	14.3736	14.1982	14.0196	13.9291	13.8377	13.7454	13.6522	13.5581
5	10.0510	9.8883	9.7222	9.5526	9.4665	9.3793	9.2912	9.2020	9.1118
6	7.8741	7.7183	7.5590	7.3958	7.3127	7.2285	7.1432	7.0567	6.9690
7	6.6201	6.4691	6.3143	6.1554	6.0743	5.9920	5.9084	5.8236	5.7373
8	5.8143	5.6667	5.5151	5.3591	5.2793	5.1981	5.1156	5.0316	4.9461
9	5.2565	5.1114	4.9621	4.8080	4.7290	4.6486	4.5666	4.4831	4.3978
10	4.8491	4.7059	4.5581	4.4054	4.3269	4.2469	4.1653	4.0819	3.9965
11	4.5393	4.3974	4.2509	4.0990	4.0209	3.9411	3.8596	3.7761	3.6904
12	4.2961	4.1553	4.0096	3.8584	3.7805	3.7008	3.6192	3.5355	3.4494
13	4.1003	3.9603	3.8154	3.6646	3.5868	3.5070	3.4253	3.3413	3.2548
14	3.9394	3.8001	3.6557	3.5052	3.4274	3.3476	3.2656	3.1813	3.0942
15	3.8049	3.6662	3.5222	3.3719	3.2940	3.2141	3.1319	3.0471	2.9595
16	3.6909	3.5527	3.4089	3.2587	3.1808	3.1007	3.0182	2.9330	2.8447
17	3.5931	3.4552	3.3117	3.1615	3.0835	3.0032	2.9205	2.8348	2.7459
18	3.5082	3.3706	3.2273	3.0771	2.9990	2.9185	2.8354	2.7493	2.6597
19	3.4338	3.2965	3.1533	3.0031	2.9249	2.8442	2.7608	2.6742	2.5839
20	3.3682	3.2311	3.0880	2.9377	2.8594	2.7785	2.6947	2.6077	2.5168
21	3.3098	3.1730	3.0300	2.8796	2.8010	2.7200	2.6359	2.5484	2.4568
22	3.2576	3.1209	2.9779	2.8274	2.7488	2.6675	2.5831	2.4951	2.4029
23	3.2106	3.0740	2.9311	2.7805	2.7017	2.6202	2.5355	2.4471	2.3542
24	3.1681	3.0316	2.8887	2.7380	2.6591	2.5773	2.4923	2.4035	2.3100
25	3.1294	2.9931	2.8502	2.6993	2.6203	2.5383	2.4530	2.3637	2.2696
26	3.0941	2.9578	2.8150	2.6640	2.5848	2.5026	2.4170	2.3273	2.2325
27	3.0618	2.9256	2.7827	2.6316	2.5522	2.4699	2.3840	2.2938	2.1985
28	3.0320	2.8959	2.7530	2.6017	2.5223	2.4397	2.3535	2.2629	2.1670
29	3.0045	2.8685	2.7256	2.5742	2.4946	2.4118	2.3253	2.2344	2.1379
30	2.9791	2.8431	2.7002	2.5487	2.4689	2.3860	2.2992	2.2079	2.1108
35	2.8758	2.7400	2.5970	2.4448	2.3645	2.2806	2.1926	2.0994	1.9996
40	2.8005	2.6648	2.5216	2.3689	2.2880	2.2034	2.1142	2.0194	1.9172
45	2.7432	2.6076	2.4642	2.3109	2.2296	2.1443	2.0542	1.9579	1.8535
50	2.6981	2.5625	2.4190	2.2652	2.1835	2.0976	2.0066	1.9090	1.8026
60	2.6318	2.4961	2.3523	2.1978	2.1154	2.0285	1.9360	1.8363	1.7263
70	2.5852	2.4496	2.3055	2.1504	2.0674	1.9797	1.8861	1.7846	1.6717
80	2.5508	2.4151	2.2709	2.1153	2.0318	1.9435	1.8489	1.7459	1.6305
90	2.5243	2.3886	2.2442	2.0882	2.0044	1.9155	1.8201	1.7158	1.5982
100	2.5033	2.3676	2.2230	2.0666	1.9826	1.8933	1.7972	1.6918	1.5723
120	2.4721	2.3363	2.1915	2.0346	1.9500	1.8600	1.7628	1.6557	1.5330

分母自由度 n