

Table Cumulative Binomial Probabilities

$$P(\text{at least } k \text{ successes in } n \text{ trials}) = \sum_{i=k}^n \binom{n}{i} p^i (1-p)^{n-i}$$

n	k	.01	.05	.10	.15	1/6	.20	.25	.30	1/3	.35	.40	.45	.50
5	1	.0490	.2262	.4095	.5563	.5981	.6723	.7627	.8319	.8683	.8840	.9222	.9497	.9688
	2	.0010	.0226	.0815	.1648	.1962	.2627	.3672	.4718	.5391	.5716	.6630	.7538	.8125
	3	.0000	.0012	.0086	.0266	.0355	.0579	.1035	.1631	.2099	.2352	.3174	.4069	.5000
	4	.0000	.0000	.0005	.0022	.0033	.0067	.0156	.0308	.0453	.0540	.0870	.1312	.1875
	5	.0000	.0000	.0000	.0001	.0001	.0003	.0010	.0024	.0041	.0053	.0102	.0185	.0313
6	1	.0585	.2649	.4686	.6229	.6651	.7379	.8220	.8824	.9122	.9246	.9533	.9723	.9844
	2	.0015	.0328	.1143	.2235	.2632	.3446	.4661	.5798	.6488	.6809	.7667	.8364	.8906
	3	.0000	.0022	.0159	.0473	.0623	.0989	.1694	.2557	.3196	.3529	.4557	.5585	.6563
	4	.0000	.0001	.0013	.0059	.0087	.0170	.0379	.0705	.1001	.1174	.1792	.2553	.3438
	5	.0000	.0000	.0001	.0004	.0007	.0016	.0046	.0109	.0178	.0223	.0410	.0692	.1094
	6	.0000	.0000	.0000	.0000	.0000	.0001	.0002	.0007	.0014	.0018	.0041	.0083	.0156
7	1	.0679	.3017	.5217	.6794	.7209	.7903	.8665	.9176	.9415	.9510	.9720	.9848	.9922
	2	.0020	.0444	.1497	.2834	.3302	.4233	.5551	.6706	.7366	.7662	.8414	.8976	.9375
	3	.0000	.0038	.0257	.0738	.0958	.1480	.2436	.3529	.4294	.4677	.5801	.6836	.7734
	4	.0000	.0002	.0027	.0121	.0176	.0333	.0706	.1260	.1733	.1998	.2898	.3917	.5000
	5	.0000	.0000	.0002	.0012	.0020	.0047	.0129	.0288	.0453	.0556	.0963	.1529	.2266
	6	.0000	.0000	.0000	.0001	.0001	.0004	.0013	.0038	.0069	.0090	.0188	.0357	.0625
	7	.0000	.0000	.0000	.0000	.0000	.0000	.0001	.0002	.0005	.0006	.0016	.0037	.0078
8	1	.0773	.3366	.5695	.7275	.7674	.8322	.8999	.9424	.9610	.9681	.9832	.9916	.9961
	2	.0027	.0572	.1869	.3428	.3953	.4967	.6329	.7447	.8049	.8309	.8936	.9368	.9648
	3	.0001	.0058	.0381	.1052	.1348	.2031	.3215	.4482	.5318	.5722	.6846	.7799	.8555
	4	.0000	.0004	.0050	.0214	.0307	.0563	.1138	.1941	.2587	.2936	.4059	.5230	.6367
	5	.0000	.0000	.0004	.0029	.0046	.0104	.0273	.0580	.0879	.1061	.1737	.2604	.3633
	6	.0000	.0000	.0000	.0002	.0004	.0012	.0042	.0113	.0197	.0253	.0498	.0885	.1445
	7	.0000	.0000	.0000	.0000	.0000	.0001	.0004	.0013	.0026	.0036	.0085	.0181	.0352
	8	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0001	.0002	.0002	.0007	.0017	.0039
9	1	.0865	.3698	.6126	.7684	.8062	.8658	.9249	.9596	.9740	.9793	.9899	.9954	.9980
	2	.0034	.0712	.2252	.4005	.4573	.5638	.6997	.8040	.8569	.8789	.9295	.9615	.9805
	3	.0001	.0084	.0530	.1409	.1783	.2618	.3993	.5372	.6228	.6627	.7682	.8505	.9102
	4	.0000	.0006	.0083	.0339	.0480	.0856	.1657	.2703	.3497	.3911	.5174	.6386	.7461
	5	.0000	.0000	.0009	.0056	.0090	.0196	.0489	.0988	.1448	.1717	.2666	.3786	.5000
	6	.0000	.0000	.0001	.0006	.0011	.0031	.0100	.0253	.0424	.0536	.0994	.1658	.2539
	7	.0000	.0000	.0000	.0000	.0001	.0003	.0013	.0043	.0083	.0112	.0250	.0498	.0898
	8	.0000	.0000	.0000	.0000	.0000	.0000	.0001	.0004	.0010	.0014	.0038	.0091	.0195
	9	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0001	.0001	.0003	.0008	.0020

考試科目	個體經濟學	所別	經濟系(乙)	考試時間	4月26日 上午第3節 星期日
------	-------	----	--------	------	--------------------

一、成本最小化的廠商其生產函數為  $Q = K^{\frac{1}{2}}L^{\frac{1}{2}}$ ，其中  $Q$  為產量， $K$  為資本投入， $L$  為勞動投入。然而勞動又可分為白天的勞動，其工資率為  $w$ ，晚上的勞動，其工資率則為  $w(1+b)$ ，其中  $b \geq 0$ ， $b$  也代表晚上勞動，工資的差幅。若  $b$  可由工會來控制，而工會的目標在求平均工資的最大，那麼  $b$  要訂為多少？(25分)

國立政治大學圖書館

二、消費者兩期消費之效用函數為  $U = C_1 C_2^{0.6}$ ，其中  $C_1$  及  $C_2$  分別代表第一期及第二期之消費，而他的收入流 (income stream) 在第一期為  $M_1 = \$1000$ ，第二期為  $M_2 = \$648$ ，且市場利率為  $8\%$ ，求在效用最大化下之兩期消費量。(25分)

三、有 A, B 兩人及 X, Y 兩財之交換經濟，原賦為： $\bar{X}_A = 90$ ， $\bar{Y}_A = 150$   
 $\bar{X}_B = 60$ ， $\bar{Y}_B = 120$

兩人之效用函數分別為： $U_A = X_A^2 Y_A$   
 $U_B = X_B Y_B^2$

求競爭均衡 (Competitive equilibrium)  $X_A^*$ ,  $Y_A^*$ ,  $X_B^*$ ,  $Y_B^*$  之配置。(25分)

四、完全競爭廠商短期的成本函數為： $C = \frac{1}{3}q^3 - 5q^2 + 25q + 10$   
如果市場中的廠商為成本相同的 100 家企業所組成，則市場的短期供給函數為何？(25分)

考試科目	總體經濟學	所別	經濟學系乙	考試時間	星期 月 日 上午第 節
------	-------	----	-------	------	--------------

以下四題全答

1. 設凱因斯學派的 IS-LM 模型如下:

$$Y = C(Y, \frac{B}{r}) + I(r) + G$$

$$M = L(Y, r)$$

式中  $B/r$  為永久性債券外生利息收入 (B) 的折現值,  $r$  為利率, 消費需求對  $B/r$  呈增函數關係。試導引所得乘數效果  $dY/dM$ 。比較消費有無受到財高效果影響, 乘數是較大或較小? 為什麼? 輔以 IS-LM 曲線圖可說明之。(25分)

國立政治大學圖書館

2. 貨幣供給增加, 在古典、凱因斯、貨幣學派、及新興古典學派(或理性預期學派)模型下, 對經濟(國民所得或物價水準)的影響各如何?(25分)

3. 設預期擴大的菲力普曲線 (expectations-augmented phillips curve) 可以由以下的方程式導出:

$$\dot{w} = \dot{p}^e + d - \beta U$$

$$\dot{p} = \dot{w} - \alpha$$

說明以上兩式的涵意, 並導引出預期擴大的菲力普曲線, 而後據以說明它的短期或長期形態。(25分)

4. 利率被認為是影响投資決策重要的變數, 試討論其在伸縮性加速因子、新古典、現金流量、及 Tobin 子等投資理論中, 如何影响投資數量?(25分)

考試科目	統計	所別	經濟	考試時間	星期	月	日	上午第	節
------	----	----	----	------	----	---	---	-----	---

國立政治大學圖書館

1. (20%) Explain the following terms:
  - (1) random variable
  - (2) Cramer-Rao lower bound
  - (3) convergence in distribution
  - (4) instrumental variable
  - (5) heteroscedasticity
  
2. (10%) Show that the estimators of ordinary least squares is BLUE.
  
3. (10%) Explain the benefits and drawbacks of ordinary least squares estimator and maximum likelihood estimator.

國立政治大學圖書館

4. (20%) Shipments of peaches from farmer A include 5% defective peaches, while those from farmer B contain 10% defective fruit. An unmarked shipment arrives at the wholesaler's warehouse and has to be identified from a sample of 100 peaches. Suppose the cost of claiming that the peaches come from farmer A, when they in fact come from farmer B, is \$1000; the cost of making the opposite mistake is \$800. If  $H_0: \pi = 0.05$  and  $H_a: \pi = 0.10$ ; find the critical value of  $\bar{x}$  (i.e., the boundary between the acceptance and the rejection regions) and the probabilities of Type I and of Error Type II for which the expected loss is minimized.

5. (20%) Consider the model
  - (i)  $Y_t = bX_t + u_t$
 for which all of the basic assumptions are satisfied for  $u_t$  except that
  - (ii)  $u_t = \rho u_{t-1} + v_t, \quad (-1 < \rho < 1)$
 with  $u_t$  and  $u_{t-1}$  mutually independent. Please answer the following questions:
  - (a) Suppose you apply an ordinary least-squares method for equation (i), without considering the problem of equation (ii), what will happen for  $\hat{b}$ ?
  - (b) Considering equation (ii), how do you derive the best linear unbiased estimator of  $b$  and its variance?

6. (20%) There is a linear regression model as follow:  
 $Y_i = a + bX_i + U_i$   
 There are some relevant summary statistics:  
 $\sum Y = 40 \quad \sum X = 70$

一、是非(簡答)題：每小題滿分為5分。

1. 利息所得免稅額從27萬元提高至36萬元，必導致高所得者增加儲蓄意願。
2. 對某一投資者而言，其所可選擇的投資標的物如果只有兩種：股票與房地產，則該兩種投資標的物必互為替代品。
3. 台北捷運系統開始運作以來，一直處於虧損狀態。今(1998)年三月的降價行為必使其虧損狀況更為惡化。
4. 隨著妳(你)所得水準的逐漸增加，妳(你)到俱樂部運動的機會會比到運動場的提高。
5. 民國76-78年間房屋價格與成交量同呈上漲；82-84年間兩者又同呈下降，這明顯地顯示：需求法則在房屋市場是無效的。
6. 金融資本市場的存在會使社會上每個人透過跨期規劃而過得更好。

國立政治大學經濟學系

二、詳答題：滿分為20分。

1997年亞洲金融危機以來，台灣經濟亦受波及，經濟成長率有往下調整趨勢。因此，為防範上述趨勢進一步惡化，國內企業家與部份學者乃要求中央銀行調降存款準備率。上述要求如果被央行採納，其對國內利率、國民所得、一般物價與就業水準的影響如何？

考試科目	經濟學	所別	經濟學系甲	考試時間	4月26日(日)下午第一節
------	-----	----	-------	------	---------------

三、單一選擇題：個體經濟學部份，每題2分，共30分。

- Suppose that Samantha divides her consumption between orange juice and bagels. Orange juice costs \$1.00 per glass, and bagels cost \$2.00 each. In equilibrium, Samantha consumes both goods. Suppose Samantha has chosen a bundle in which the marginal utility of her last glass of orange juice was 10 utils, and the marginal utility of her last bagel was 25 utils. The total cost of this bundle matches her income.
  - Samantha is in equilibrium.
  - Samantha can increase her utility by consuming more orange juice and fewer bagels.
  - Samantha can increase her utility by consuming more of both commodities.
  - Samantha can increase her utility by consuming more bagels and less orange juice.
  - necessarily decrease William's equilibrium utility level.
  - Both A and B are correct.
- In June of 1990, there was a record heat wave in the Southwestern United States. In Santa Barbara, wild brush fires destroyed 400 houses. Suppose that each of 1000 homes had a market value of \$1.5 million before the
  - consumer welfare increased as \$1800 million exceeds \$1500 million.
  - consumer welfare decreased as consumer surplus was reduced.
  - consumer welfare decreased from the deadweight loss of the fires.
  - Both B and C are correct.
- If the federal government imposes a new tax on soft drinks and gives each consumer a cash rebate exactly equal to the amount of tax each pays, each consumer's:
  - real income falls, but money income remains unchanged.
  - money income falls, but real income remains unchanged.
  - real and money incomes remain unchanged.
  - real income rises, but money income remains unchanged.
- Assume a graph where future income is on the vertical axis and present income on the horizontal axis. If interest income is taxed but interest payments are not tax deductible, then the intertemporal budget constraint is:
  - give William a greater feasible set than the in-kind transfer.
  - necessarily increase William's equilibrium utility level.
- Marco's demand for spaghetti is given by:  $X=150-35p$ , where  $X$  is the servings of spaghetti and  $p$  is the price per serving. The value of Marco's elasticity when  $p=\$2$  is:
  - 35
  - 0.875
  - 1.14
  - None of the above.
- Suppose that William now receives a distribution of surplus cheese from the U.S. Agriculture Department, which he is prohibited from reselling on the market. An equivalent cash transfer would:
  - give William a greater feasible set than the in-kind transfer.
  - necessarily increase William's equilibrium utility level.

國立政治大學圖書館

考試科目	經濟學	所別	經濟學系甲	考試時間	本月26日(星期日)下午第一節
------	-----	----	-------	------	-----------------

- A. flatter above the endowment point than below it.
- B. a straight line with no kink.
- C. steeper above the endowment point than below it.
- D. kinked at the equilibrium point.
7. Mav and Iceman are the only two pilots in contention for Top Gun honors. Suppose that the probability of Mav winning is 60%. Viper offers Mav this bet: for each dollar he bets, Mav wins \$1 if he wins Top Gun honors, but loses \$2 if he does not get Top Gun honors. If Mav initially has an income of \$50, he will bet:
- A. \$0.
- B. \$25.
- C. \$30.
- D. \$50.
8. Consider an indifference map for contingent commodities. The slope of each indifference curve at the curve's intersection with the certainty line equals minus the fair odds for:
- A. risk-averse individuals.
- B. risk-loving individuals.
- C. risk-neutral individuals.
- D. All of the above.
9. Suppose that Modern Cabinet, Inc.'s production function is  $F(L, K) = 2L^3K^2$ . Then the marginal rate of technical substitution equals:
- A.  $3L/2K$ .
- B.  $K/L$ .
- C.  $L/K$ .
- D.  $3K/2L$ .
10. Suppose the government imposes a new sales tax on vanilla ice cream. General equilibrium analysis would indicate the impact of the tax on the market for:
- A. vanilla ice cream.
- B. chocolate ice cream.
- C. hot fudge sauce.
- D. All of the above.
11. Consider a monopolist that initially charges a single price while selling to two different sets of customers. If the monopolist then successfully practices third-degree price discrimination, total surplus
- A. may rise or fall if total output falls.
- B. always falls.
- C. always falls if total output rises.
- D. always falls if total output falls.
12. If a cartel succeeds in maintaining the cartel price but cannot prevent the entry of new firms into the industry:
- A. the industry's total output level will rise.
- B. entry continues until the equilibrium average cost equals the fixed price.
- C. entry continues until the equilibrium marginal cost equals the fixed price.
- D. All of the above are correct.
13. Consider an insurance company that does not know any particular individual's probability of making a claim on the insurance policy.

科目	經濟學	所別	經濟學系甲	考試日期	4月26日	①	年第一	節
----	-----	----	-------	------	-------	---	-----	---

國立政治大學圖書館

However, each individual knows his or her probability of making a claim. If the insurance company offers the same policy to all insured parties and charges a premium that will allow the company to break even on average:

- A. the insurance will be actuarially unfair for the high-risk individuals.
- B. Low-risk individuals will buy less than full insurance.
- C. the insurance will be actuarially unfair for the low-risk individuals.
- D. Both B and C are correct.

14. Dana lives in Wisconsin and loves eating cheese. So many people move to Wisconsin and start eating cheese that the price of cheese goes up. This is an example of a:

- A. positive externality
- B. negative externality.
- C. public bad.
- D. None of the above is correct.

15. At the end of the movie, Total recall, Mars has developed an atmosphere with sufficient oxygen to sustain human life, which did not exist at the beginning of the film. This means that air is now:

- A. a private good.
- B. rival.
- C. a public good.
- D. None of the above is correct.

國立政治大學圖書館

1. The aggregate demand curve has a negative slope because of all of the following EXCEPT

- A. the intertemporal substitution effect.
- B. the international substitution effect.
- C. the expected inflation effect.
- D. the real money balances effect.

2. We observe a decrease in the price level and an increase in real GDP. Which of the following is a possible explanation?

- A. The expectation of future profits has decreased.
- B. The money supply has decreased.
- C. The price of raw materials has increased.
- D. The stock of capital has increased.

3. Greater optimism about expected profits from potential investment projects

- A. shifts the investment demand curve to the right
- B. shifts the investment demand curve to the left.
- C. causes a movement up and to the left along the investment demand curve.
- D. causes a movement down and to the right along the investment demand curve.

四、單一選擇題：總體經濟學部份，每題 2 分，共 20 分。

4. The government purchases multiplier is

- A.  $1/(1 - \text{the slope of the aggregate expenditure curve})$ .
- B.  $(1 - \text{the slope of the aggregate expenditure curve})$ .



考試科目	經濟學	所別	經濟學系甲	考試時間	4月26日(日)上午第一節
------	-----	----	-------	------	---------------

- C.  $(1-MPC)/(1-$  the slope of the aggregate expenditure curve).
- D.  $-MPC/(1-$  the slope of the aggregate expenditure curve).
5. Over the course of the business cycle, the multiplier
- tends to be less than 1 in recovery and greater than 1 in a recession.
  - tends to be less than 1 in a recession and greater than 1 in a recovery.
  - tends to move in the direction opposite to income.
  - remains constant because of automatic stabilizers.
6. Which of the following will cause the demand curve for real money to shift to the left?
- An increase in real GDP.
  - The expanded use of credit cards.
  - An increase in the price level.
  - An increase in the quantity of money supplied.
7. An increase in government expenditures induces
- an increase in the demand for real money.
  - a decrease in the demand for real money.
  - no change in the demand for real money.
  - a decrease in the money supply.
8. Fiscal policy is less effective when the investment demand curve is
- elastic and the demand curve for real money is also elastic.
  - elastic and the demand curve for real money is inelastic.
  - inelastic and the demand curve for real money is elastic.
  - inelastic and the demand curve for real money is also inelastic.
9. If the economy starts from full employment, the long-run effect of an expansionary monetary policy is
- a rise in both real GDP and the price level.
  - no change in either real GDP or the price level.
  - a rise in real GDP but no change in the price level.
  - a rise in the price level but no change in real GDP.
10. If the actual price level is lower than the expected price level, then real GDP
- will be above its full-employment level.
  - will be below its full-employment level.
  - will be equal to its full-employment level.
  - can be above, below, or equal to its full-employment level depending on the position of the aggregate demand curve.

考試科目	數學	所別	經濟甲	考試時間	月 日 上午第 節
------	----	----	-----	------	-----------

下面六題，請任選五題作答，每題佔分20分。若全答，則將僅就答題本上前五題計分。

一、試說明方陣 (square matrix) 之對角化 (diagonalization) 及其特徵值 (eigenvalue, characteristic value) 與特徵向量 (eigenvector, characteristic vector) 在連續可微分函數的求極值問題 (optimization problem) 上所扮演的角色為何？

國立政治大學國協發

二、假設

$$\mathbf{A} = \mathbf{I} - \mathbf{X}(\mathbf{X}^T \mathbf{X})^{-1} \mathbf{X}^T$$

其中  $\mathbf{A}$  與  $\mathbf{I}$  與  $\mathbf{X}$  均為矩陣， $\mathbf{I}$  更是對等矩陣 (identity matrix)， $T$  為矩陣轉置 (transpose) 符號。試證明  $\mathbf{A}$  為對稱矩陣 (symmetric matrix)，而且滿足

$$\mathbf{A} \cdot \mathbf{A} = \mathbf{A}$$

的條件。

三、試解下列之微分方程式。

$$(2x + 3y + 1)dx + (3x - 2y + 1)dy = 0$$

四、Gamma 函數之定義為

$$\Gamma(\alpha) = \int_0^{\infty} x^{\alpha-1} e^{-x} dx, \quad \alpha > 0$$

試證明

$$\Gamma(\alpha + 1) = \alpha \Gamma(\alpha)$$

五、試求

$$\frac{d}{dx} \int_{a(x)}^{b(x)} F(x, t) dt = ?$$

六、試求

$$\lim_{x \rightarrow \infty} \left(1 + \frac{1}{x}\right)^x = ?$$

試科目	統計學(甲組)	所別	經濟所	考試時間	4月26日 上午第 星期 日 下午第	節
-----	---------	----	-----	------	-----------------------	---

- Of the resistors made by a certain company, 0.5% are defective. Find the probability that in a shipment of 300,
  - none is defective. (10%)
  - at most three are defective. (10%)
- Given that  $(X_1, X_2)$  is trinomial with parameters  $(n; p_1, p_2)$ ,
  - what is the distribution of  $X_1 + X_2$ ? (10%)
  - find the distribution of  $X_1$  given  $X_1 + X_2 = k$ . (10%)
- Women constitute 15% of the population in a certain city. Find the probability that the proportions of women in two independent random samples, each of size 500, will differ by more than 2 percentage points. (20%)
- Suppose a treatment is intended to increase a response. Consider the null hypothesis that the mean increase is  $\mu = 0$ . A study employing a sample of size  $n$  is to be conducted to determine the treatment's effect. A treatment effect is to be inferred if  $\bar{X} > K$ . The test is to have  $\alpha = 0.05$  and an 80% chance of detecting a mean increase of 2 units. What sample size  $n$  and critical value  $K$  should be used, given that  $\sigma = 5$ ? (20%)
- The director of graduate studies in an economics department finds that for 25 entering students with average entrance examines scores(AEE), the correlation of AEE with end-of-first-year GPA is 0.75. For GPA the mean is 3.4 and the s.d. is .22. For AEE, the mean is 70 and the s.d. is 3
  - Find the least-squares line for predicting GPA from GRE. (10%)
  - What GPA is predicted for an incoming student with GRE=78? (10%)

國立政治大學圖書館

Table Cumulative Poisson Probabilities

$$P(X \leq c | m) = \sum_{k=0}^c \frac{m^k}{k!} e^{-m}$$

		m (expected value)										
c		.02	.04	.06	.08	.10	.15	.20	.25	.30	.35	40
0		.980	.961	.942	.923	.905	.861	.819	.779	.741	.705	.670
1		1.000	.999	.998	.997	.995	.990	.982	.974	.963	.951	.938
2			1.000	1.000	1.000	1.000	.999	.999	.998	.996	.994	.992
3							1.000	1.000	1.000	1.000	1.000	.999
4												1.000
c		.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95
0		.638	.607	.577	.549	.522	.497	.472	.449	.427	.407	.387
1		.925	.910	.894	.878	.861	.844	.827	.809	.791	.772	.754
2		.989	.986	.982	.977	.972	.966	.959	.953	.945	.937	.929
3		.999	.998	.998	.997	.996	.994	.993	.991	.989	.987	.984
4		1.000	1.000	1.000	1.000	.999	.999	.999	.999	.998	.998	.997
5						1.000	1.000	1.000	1.000	1.000	1.000	1.000
c		1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0
0		.368	.333	.301	.273	.247	.223	.202	.183	.165	.150	.135
1		.736	.699	.663	.627	.592	.558	.525	.493	.463	.434	.406
2		.920	.900	.879	.857	.833	.809	.783	.757	.731	.704	.677
3		.981	.974	.966	.957	.946	.934	.921	.907	.891	.875	.857
4		.996	.996	.992	.989	.986	.981	.976	.970	.964	.956	.947
5		.999	.999	.998	.998	.997	.996	.994	.992	.990	.987	.983
6		1.000	1.000	1.000	1.000	.999	.999	.999	.998	.997	.997	.995
7						1.000	1.000	1.000	1.000	.999	.999	.999
8										.000	1.000	1.000
c		2.2	2.4	2.6	2.8	3.0	3.2	3.4	3.6	3.8	4.0	4.2
0		.111	.091	.074	.061	.050	.041	.033	.027	.022	.018	.015
1		.355	.308	.267	.231	.199	.171	.147	.126	.107	.092	.078
2		.623	.570	.518	.469	.423	.380	.340	.303	.269	.238	.210
3		.819	.779	.736	.692	.647	.603	.558	.515	.473	.433	.395
4		.928	.904	.877	.848	.815	.781	.744	.706	.668	.629	.590
5		.975	.964	.951	.935	.916	.895	.871	.844	.816	.785	.753
6		.993	.988	.983	.976	.966	.955	.942	.927	.909	.889	.867
7		.998	.997	.995	.992	.988	.983	.977	.969	.960	.949	.936
8		1.000	.999	.999	.998	.996	.994	.992	.988	.984	.979	.972
9			1.000	1.000	.999	.999	.998	.997	.996	.994	.992	.989
10					1.000	1.000	1.000	.999	.999	.998	.997	.996
11								1.000	1.000	.999	.999	.999
12										1.000	1.000	1.000