

ΠΙΝΑΚΕΣ

ΔΙΑΚΡΙΤΕΣ ΚΑΤΑΝΟΜΕΣ ΜΙΑΣ ΜΕΤΑΒΛΗΤΗΣ

ΚΑΤΑΝΟΜΗ	ΠΑΡΑΜΕΤΡΟΙ	ΣΥΜΒΟΛ.	ΣΥΝΑΡΤΗΣΗ ΠΙΘΑΝΟΤΗΤΑΣ	ΜΕΣΗ ΤΙΜΗ	ΔΙΑΣΠΟΡΑ	ΧΑΡΑΚΤ. ΣΥΝ.
BERNOULLI	$0 \leq p \leq 1$	$B(p)$	$p_x = p^x (1-p)^{1-x}, x = 0, 1$	p	$p(1-p)$	$1-p + pe^i$
ΔΙΩΝΥΜΙΚΗ	$n = 1, 2, \dots$ $0 \leq p \leq 1$	$b(n, p)$	$p_x = \binom{n}{x} p^x (1-p)^{n-x},$ $x = 0, 1, \dots, n$	np	$np(1-p)$	$(1-p + pe^i)^n$
ΥΠΕΡ - ΓΕΩΜΕΤΡΙΚΗ	$N = 2, 3, \dots$ $K = 1, \dots, N$ $n = 1, \dots, N$	-	$p_x = \frac{\binom{K}{x} \binom{N-K}{n-x}}{\binom{N}{n}}, x = 0, 1, \dots, n$	$\frac{nK}{N}$	$\frac{nK(N-K)(N-n)}{N^2(N-1)}$	
ΓΕΩΜΕΤΡΙΚΗ	$0 \leq p \leq 1$	-	$p_x = p(1-p)^{x-1}, x = 1, 2, \dots$	$\frac{1}{p}$	$\frac{1-p}{p^2}$	$\frac{pe^i}{1-(1-p)e^i}$
ΑΡΝΗΤΙΚΗ ΔΙΩΝΥΜΙΚΗ	$n = 1, 2, \dots$ $0 \leq p \leq 1$		$p_x = \binom{x-1}{n-1} p^n (1-p)^{x-n},$ $x = n, n+1, \dots$	$\frac{n}{p}$	$\frac{n(1-p)}{p^2}$	$\left\{ \frac{pe^i}{1-(1-p)e^i} \right\}^n$
POISSON	$\lambda > 0$	$P(\lambda)$	$p_x = e^{-\lambda} \frac{\lambda^x}{x!}, x = 0, 1, \dots$	λ	λ	$e^{-\lambda(1-e^i)}$

ΚΑΤΑΝΟΜΗ	ΠΑΡΑΜΕΤΡΟΙ	ΣΥΜΒΟΛ.	ΣΥΝΑΡΤΗΣΗ ΠΙΘΑΝΟΤΗΤΑΣ	ΜΕΣΗ ΤΙΜΗ	ΔΙΑΣΠΟΡΑ	ΧΑΡΑΚΤ. ΣΥΝ.
ΟΜΟΙΟΜΟΡΦΗ	$-\infty < a < \beta < \infty$	$U(a, \beta)$	$f(x) = \frac{1}{\beta - a}, a \leq x \leq \beta$	$\frac{a + \beta}{2}$	$\frac{(\beta - a)^2}{12}$	$\frac{e^{i\theta} - e^{i\alpha}}{i(\beta - a)}$
ΚΑΝΟΝΙΚΗ (GAUSSIAN)	$-\infty < \mu < \infty$ $\sigma > 0$	$N(\mu, \sigma^2)$	$f(x) = \frac{1}{\sqrt{2\pi\sigma}} \exp\left\{-\frac{1}{2\sigma^2}(x - \mu)^2\right\},$ $-\infty < x < \infty$	μ	σ^2	$\exp\left\{i\mu t - \frac{1}{2}t^2\sigma^2\right\}$
ΛΟΓΑΡΙΘΜΟ - ΚΑΝΟΝΙΚΗ	$-\infty < \mu < \infty$ $\sigma > 0$	$LN(\mu, \sigma^2)$	$f(x) = \frac{1}{\sqrt{2\pi\sigma}} x^{-1} \cdot \exp\left\{-\frac{1}{2\sigma^2}(\log x - \mu)\right\}, x > 0$	$e^{\mu - \sigma^2/2}$	$e^{2\mu - \sigma^2}(e^{\sigma^2} - 1)$	
ΓΑΜΜΑ	$\alpha, \beta > 0$	$G(\alpha, \beta)$	$f(x) = \frac{\beta^\alpha}{\Gamma(\alpha)} x^{\alpha-1} e^{-\beta x}, x \geq 0$	$\frac{\alpha}{\beta}$	$\frac{\alpha}{\beta^2}$	$\left(\frac{\beta}{\beta - it}\right)^\alpha$
ΕΚΘΕΤΙΚΗ	$a > 0$	$E(a)$	$f(x) = ae^{-ax}, x \geq 0$	$\frac{1}{a}$	$\frac{1}{a^2}$	$\frac{a}{a - it}$
χ^2	$\nu = 1, 2, \dots$	$\chi^2(\nu)$	$f(x) = \frac{1}{2^{\nu/2} \Gamma(\nu/2)} x^{\nu/2-1} e^{-x/2}, x \geq 0$	ν	2ν	$(1 - 2it)^{-\nu/2}$
ΒΗΤΑ	$p, q > 0$	$Be(p, q)$	$f(x) = \frac{\Gamma(p+q)}{\Gamma(p)\Gamma(q)} x^{p-1}(1-x)^{q-1},$ $0 \leq x \leq 1$	$\frac{p}{p+q}$	$\frac{pq}{(p+q)^2(p+q+1)}$	$\frac{\Gamma(p+q)}{\Gamma(p)} \sum_{v=0}^{\infty} \frac{(it)^v \Gamma(p+v)}{(p+q+v)\Gamma(v+1)}$
RAYLEIGH	$\delta > 0$	-	$f(x) = \frac{x}{\delta^2} \exp\left\{-\frac{x^2}{2\delta^2}\right\}, x \geq 0$	$\delta\sqrt{\frac{\pi}{2}}$	$0,429 \delta^2$	
CAUCHY	$-\infty < \mu < \infty$ $\delta > 0$	-	$f(x) = \frac{\delta}{\pi[\delta^2 + (x - \mu)^2]}, -\infty < x < \infty$	δ	δ	$e^{i\theta - \theta \delta}$
WEIBULL	$\delta, \eta > 0$	-	$f(x) = \frac{\eta}{\delta} \left(\frac{x}{\delta}\right)^{\eta-1} \exp\left\{-\left(\frac{x}{\delta}\right)^\eta\right\}, x \geq 0$	$\delta \Gamma(1 + \eta^{-1})$	$\delta^2 \Gamma(1 + 2\eta^{-1}) - \mu^2$	

ΣΥΝΕΧΕΙΣ ΚΑΤΑΝΟΜΕΣ ΜΙΑΣ ΜΕΤΑΒΛΗΤΗΣ (συνέχεια)

t του STUDENT	$\nu = 1, 2, \dots$	$S(\nu)$	$f(t) = \frac{\Gamma\left(\frac{\nu+1}{2}\right)}{\sqrt{\nu} \Gamma\left(\frac{\nu}{2}\right)} \Gamma\left(\frac{1}{2}\right) \frac{1}{\left(1 + \frac{t^2}{\nu}\right)^{(\nu+1)/2}}$ $-\infty < t < \infty$	0	$\frac{\nu}{\nu-2}$ ($\nu > 2$)	
F του SNEDECOR	$\nu_1, \nu_2 = 1, 2, \dots$	$F(\nu_1, \nu_2)$	$f(t) = \frac{\Gamma\left(\frac{\nu_1 + \nu_2}{2}\right)}{\Gamma\left(\frac{\nu_1}{2}\right) \Gamma\left(\frac{\nu_2}{2}\right)} \frac{x^{(\nu_1/2)-1}}{\left(1 + \frac{\nu_1}{\nu_2} x\right)^{(\nu_1 + \nu_2)/2}}$ $x \geq 0$	$\frac{\nu_2}{\nu_2 - 2}$ ($\nu_2 > 2$)	$\frac{2\nu_2^2(\nu_1 + \nu_2 - 2)}{\nu_1(\nu_2 - 2)(\nu_2 - 4)}$ ($\nu_2 > 4$)	

ΠΟΛΥΜΕΤΑΒΛΗΤΕΣ ΚΑΤΑΝΟΜΕΣ

ΚΑΤΑΝΟΜΗ	ΠΑΡΑΜΕΤΡΟΙ	ΣΥΜΒΟΛ.	ΣΥΝΑΡΤΗΣΗ ΠΙΘΑΝΟΤΗΤΑΣ	ΜΕΣΗ ΤΙΜΗ	ΔΙΑΣΠΟΡΑ	ΧΑΡΑΚΤ. ΣΥΝ.
ΠΟΛΥΩΝΥΜΙΚΗ	$n = 1, 2, \dots$ $\nu = 2, 3, \dots$ $0 \leq p_j \leq 1$ ($j = 1, \dots, \nu$) ($\sum_{j=1}^{\nu} p_j = 1$)	$b(p)$	$p_x = \binom{n}{x} \prod_{j=1}^{\nu} p_j^{x_j}$, ($0 \leq x_j \leq n$) $(\sum_{j=1}^{\nu} x_j = n)$	np	$\sigma_{ii} = np_i(1 - p_i)$ $\sigma_{ij} = np_i p_j$ ($i \neq j$)	$\varphi_x(t) = \sum_{j=1}^{\nu} p_j e^{it} - p_\nu$
n - ΔΙΑΣΤΑΤΗ ΚΑΝΟΝΙΚΗ	$\mu \in \mathbb{R}^n$, $\Sigma = [\sigma_{ij}]$ γνησίως θετικός & συμμετρικός πίνακας ($n \times n$)	$N(\mu, \Sigma)$	$f(x) = \frac{ \Sigma ^{-1/2}}{(2\pi)^{n/2}} \exp\left\{-\frac{1}{2} Q(x)\right\}$, $Q(x) = (x - \mu)^T \Sigma^{-1} (x - \mu)$, $x \in \mathbb{R}^n$	μ	$[\sigma_{ij}]$ ($i, j = 1, \dots, n$)	$\varphi_x(t) = \exp\left\{it^T \mu - \frac{1}{2} t^T \Sigma t\right\}$

Σημείωση: Για μια τυχαία μεταβλητή X που ακολουθεί κατανομή συμβολιζόμενη με $D(\theta)$, έστω, η συνάρτηση κατανομής πιθανότητας αυτής στο σημείο x συμβολίζεται με $CD(x|\theta)$. Αν π.χ. η τ.μ. X ακολουθεί κατανομή t του Student $St(\nu)$, τότε $CSi(x|\nu) = P(X \leq x)$.

ΠΙΝΑΚΑΣ 1. ΚΑΤΑΝΟΜΗ POISSON

$$\text{Τιμές του } \sum_{x=X}^{\infty} \frac{e^{-\theta} \theta^x}{x!}$$

θ

X	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
0	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	0.0952	0.1813	0.2592	0.3297	0.3935	0.4512	0.5034	0.5507	0.5934	0.6321
2	0.0047	0.0175	0.0369	0.0616	0.0902	0.1219	0.1558	0.1912	0.2275	0.2642
3	0.0002	0.0011	0.0036	0.0079	0.0144	0.0231	0.0341	0.0474	0.0629	0.0803
4	0.0000	0.0001	0.0003	0.0008	0.0018	0.0034	0.0058	0.0091	0.0135	0.0190
5	0.0000	0.0000	0.0000	0.0001	0.0002	0.0004	0.0008	0.0014	0.0023	0.0037
6	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0003	0.0006
7	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001

θ

X	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0
0	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	0.6671	0.6988	0.7275	0.7534	0.7769	0.7981	0.8173	0.8347	0.8504	0.8647
2	0.3010	0.3374	0.3732	0.4082	0.4422	0.4751	0.5068	0.5372	0.5663	0.5940
3	0.0996	0.1205	0.1429	0.1665	0.1912	0.2166	0.2428	0.2694	0.2963	0.3233
4	0.0257	0.0338	0.0431	0.0537	0.0656	0.0788	0.0932	0.1087	0.1253	0.1429
5	0.0054	0.0077	0.0107	0.0143	0.0186	0.0237	0.0296	0.0364	0.0441	0.0527
6	0.0010	0.0015	0.0022	0.0032	0.0045	0.0060	0.0080	0.0104	0.0132	0.0166
7	0.0001	0.0003	0.0004	0.0006	0.0009	0.0013	0.0019	0.0026	0.0034	0.0045
8	0.0000	0.0000	0.0001	0.0001	0.0002	0.0003	0.0004	0.0006	0.0008	0.0011
9	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0002	0.0002

θ

X	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.0
0	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	0.8775	0.8892	0.8997	0.9093	0.9179	0.9257	0.9328	0.9392	0.9450	0.9502
2	0.6204	0.6454	0.6691	0.6916	0.7127	0.7326	0.7513	0.7689	0.7854	0.8009
3	0.3504	0.3773	0.4040	0.4303	0.4562	0.4816	0.5064	0.5305	0.5540	0.5768
4	0.1614	0.1806	0.2007	0.2213	0.2424	0.2640	0.2859	0.3081	0.3304	0.3528
5	0.0621	0.0725	0.0838	0.0959	0.1088	0.1226	0.1371	0.1523	0.1682	0.1847
6	0.0204	0.0249	0.0300	0.0357	0.0420	0.0490	0.0567	0.0651	0.0742	0.0839
7	0.0059	0.0075	0.0094	0.0116	0.0142	0.0172	0.0206	0.0244	0.0287	0.0335
8	0.0015	0.0020	0.0026	0.0033	0.0042	0.0053	0.0066	0.0081	0.0099	0.0119
9	0.0003	0.0005	0.0006	0.0009	0.0011	0.0015	0.0019	0.0024	0.0031	0.0038
10	0.0001	0.0001	0.0001	0.0002	0.0003	0.0004	0.0005	0.0007	0.0009	0.0011
11	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0002	0.0002	0.0003
12	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001

ΠΙΝΑΚΑΣ 1. (Συνέχεια)

X	θ									
	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	4.0
0	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	0.9550	0.9592	0.9631	0.9666	0.9698	0.9727	0.9753	0.9776	0.9798	0.9817
2	0.8153	0.8288	0.8414	0.8532	0.8641	0.8743	0.8838	0.8926	0.9008	0.9084
3	0.5988	0.6201	0.6406	0.6603	0.6792	0.6973	0.7146	0.7311	0.7469	0.7619
4	0.3752	0.3975	0.4197	0.4416	0.4634	0.4848	0.5058	0.5265	0.5468	0.5665
5	0.2018	0.2194	0.2374	0.2558	0.2746	0.2936	0.3128	0.3322	0.3516	0.3712
6	0.0943	0.1054	0.1171	0.1295	0.1424	0.1559	0.1699	0.1844	0.1994	0.2149
7	0.0388	0.0446	0.0510	0.0579	0.0653	0.0733	0.0818	0.0909	0.1005	0.1107
8	0.0142	0.0168	0.0198	0.0231	0.0267	0.0308	0.0352	0.0401	0.0454	0.0511
9	0.0047	0.0057	0.0069	0.0083	0.0099	0.0117	0.0137	0.0160	0.0185	0.0214
10	0.0014	0.0018	0.0022	0.0027	0.0033	0.0040	0.0048	0.0058	0.0069	0.0081
11	0.0004	0.0005	0.0006	0.0008	0.0010	0.0013	0.0016	0.0019	0.0023	0.0028
12	0.0001	0.0001	0.0002	0.0002	0.0003	0.0004	0.0005	0.0006	0.0007	0.0009
13	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0003
14	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001

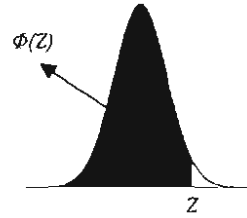
X	θ									
	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	5.0
0	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	0.9834	0.9850	0.9864	0.9877	0.9889	0.9899	0.9909	0.9918	0.9926	0.9933
2	0.9155	0.9220	0.9281	0.9337	0.9389	0.9437	0.9482	0.9523	0.9561	0.9596
3	0.7762	0.7898	0.8026	0.8149	0.8264	0.8374	0.8477	0.8575	0.8667	0.8753
4	0.5858	0.6046	0.6228	0.6406	0.6577	0.6743	0.6903	0.7058	0.7207	0.7350
5	0.3907	0.4102	0.4296	0.4488	0.4679	0.4868	0.5054	0.5237	0.5418	0.5595
6	0.2307	0.2469	0.2633	0.2801	0.2971	0.3142	0.3316	0.3490	0.3665	0.3840
7	0.1214	0.1325	0.1442	0.1564	0.1689	0.1820	0.1954	0.2092	0.2233	0.2378
8	0.0573	0.0639	0.0710	0.0786	0.0866	0.0951	0.1040	0.1133	0.1231	0.1334
9	0.0245	0.279	0.0317	0.0358	0.0403	0.0451	0.0503	0.0558	0.0618	0.0681
10	0.0095	0.0111	0.0129	0.0149	0.0171	0.0195	0.0222	0.0251	0.0283	0.0318
11	0.0034	0.0041	0.0048	0.0057	0.0067	0.0078	0.0090	0.0104	0.0120	0.0137
12	0.0011	0.0014	0.0017	0.0020	0.0024	0.0029	0.0034	0.0040	0.0047	0.0055
13	0.0003	0.0004	0.0005	0.0007	0.0008	0.0010	0.0012	0.0014	0.0017	0.0020
14	0.0001	0.0001	0.0002	0.0002	0.0003	0.0003	0.0004	0.0005	0.0006	0.0007
15	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002
16	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001

ΠΙΝΑΚΑΣ 1. (Συνέχεια)

X	θ									
	7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.9	8.0
0	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	0.9992	0.9993	0.9993	0.9994	0.9994	0.9995	0.9995	0.9996	0.9996	0.9997
2	0.9933	0.9939	0.9944	0.9949	0.9953	0.9957	0.9961	0.9964	0.9967	0.9970
3	0.9725	0.9745	0.9764	0.9781	0.9797	0.9812	0.9826	0.9839	0.9851	0.9862
4	0.9233	0.9281	0.9326	0.9368	0.9409	0.9446	0.9482	0.9515	0.9547	0.9576
5	0.8359	0.8445	0.8527	0.8605	0.8679	0.8751	0.8819	0.8883	0.8945	0.9004
6	0.7119	0.7241	0.7360	0.7474	0.7586	0.7693	0.7797	0.7897	0.7994	0.8088
7	0.5651	0.5796	0.5940	0.6080	0.6218	0.6354	0.6486	0.6616	0.6743	0.6866
8	0.4162	0.4311	0.4459	0.4607	0.4754	0.4900	0.5044	0.5188	0.5330	0.5470
9	0.2840	0.2973	0.3108	0.3243	0.3380	0.3578	0.3657	0.3796	0.3935	0.4075
10	0.1798	0.1904	0.2012	0.2123	0.2236	0.2351	0.2469	0.2589	0.2710	0.2834
11	0.1058	0.1133	0.1212	0.1293	0.1378	0.1465	0.1555	0.1648	0.1743	0.1841
12	0.0580	0.0629	0.0681	0.0735	0.0792	0.0852	0.0915	0.0980	0.1048	0.1119
13	0.0297	0.0327	0.0358	0.0391	0.0427	0.0464	0.0504	0.546	0.0591	0.0638
14	0.0143	0.0159	0.0176	0.0195	0.0216	0.0238	0.0261	0.0286	0.0313	0.0342
15	0.0065	0.0073	0.0082	0.0092	0.0103	0.0114	0.0127	0.0141	0.0156	0.0173
16	0.0028	0.0031	0.0036	0.0041	0.0046	0.0052	0.0059	0.0066	0.0074	0.0082
17	0.0011	0.0013	0.0015	0.0017	0.0020	0.0022	0.0026	0.0029	0.0033	0.0037
18	0.0004	0.0005	0.0006	0.0007	0.0008	0.0009	0.0011	0.0012	0.0014	0.0016
19	0.0002	0.0002	0.0002	0.0003	0.0003	0.0004	0.0004	0.0005	0.0006	0.0006
20	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0003
21	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0001
X	θ									
	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	9.0
0	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	0.9997	0.9997	0.9998	0.9998	0.9998	0.9998	0.9998	0.9998	0.9999	0.9999
2	0.9972	0.9975	0.9977	0.9979	0.9981	0.9982	0.9984	0.9985	0.9987	0.9988
3	0.9873	0.9882	0.9891	0.9900	0.9907	0.9914	0.9921	0.9927	0.9932	0.9938
4	0.9604	0.9630	0.9654	0.9677	0.9699	0.9719	0.9738	0.9756	0.9772	0.9788
5	0.9060	0.9113	0.9163	0.9211	0.9256	0.9299	0.9340	0.9379	0.9416	0.9450
6	0.8178	0.8264	0.8347	0.8427	0.8504	0.8578	0.8648	0.8716	0.8781	0.8843
7	0.6987	0.7104	0.7219	0.7330	0.7438	0.7543	0.7645	0.7744	0.7840	0.7932
8	0.5609	0.5746	0.5881	0.6013	0.6144	0.6272	0.6398	0.6522	0.6643	0.6761
9	0.4214	0.4353	0.4493	0.4631	0.4769	0.4906	0.5042	0.5177	0.5311	0.5443
10	0.2959	0.3085	0.3212	0.3341	0.3470	0.3600	0.3731	0.3863	0.3994	0.4126
11	0.1942	0.2045	0.2150	0.2257	0.2366	0.2478	0.2591	0.2706	0.2822	0.2940
12	0.1193	0.1269	0.1348	0.1429	0.1513	0.1600	0.1689	0.1780	0.1874	0.1970
13	0.0687	0.0739	0.0793	0.0850	0.0909	0.0971	0.1035	0.1102	0.1171	0.1242
14	0.0372	0.0405	0.0439	0.0476	0.0514	0.0555	0.0597	0.0642	0.0689	0.0739

ΠΙΝΑΚΑΣ 2. ΚΑΝΟΝΙΚΗ ΚΑΤΑΝΟΜΗ

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

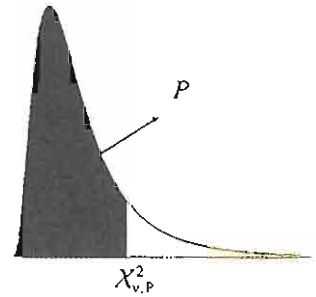


Z	0.00	0.001	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.0	0.50000	0.50399	0.50798	0.51197	0.51595	0.51994	0.52392	0.52790	0.53188	0.53586
0.1	0.53983	0.54380	0.54776	0.55172	0.55567	0.55962	0.56356	0.56749	0.57142	0.57535
0.2	0.57926	0.58317	0.58706	0.59095	0.59483	0.59871	0.60257	0.60642	0.61026	0.61409
0.3	0.61791	0.62172	0.62552	0.62930	0.63307	0.63683	0.64058	0.64431	0.64803	0.65173
0.4	0.65542	0.65910	0.66276	0.66640	0.67003	0.67364	0.67724	0.68082	0.68439	0.68793
0.5	0.69146	0.69497	0.69847	0.70194	0.70540	0.70884	0.71226	0.71566	0.71904	0.72240
0.6	0.72575	0.72907	0.73237	0.73565	0.73891	0.74215	0.74537	0.74857	0.75175	0.75490
0.7	0.75804	0.76115	0.76424	0.76730	0.77035	0.77337	0.77637	0.77935	0.78230	0.78524
0.8	0.78814	0.79103	0.79389	0.79673	0.79955	0.80234	0.80511	0.80785	0.81057	0.81327
0.9	0.81594	0.81859	0.82121	0.82381	0.82639	0.82894	0.83147	0.83398	0.83646	0.83891
1.0	0.84134	0.84375	0.84614	0.84850	0.85083	0.85314	0.85543	0.85769	0.85993	0.86214
1.1	0.86433	0.86650	0.86864	0.87076	0.87286	0.87493	0.87698	0.87900	0.88100	0.88298
1.2	0.88493	0.88686	0.88877	0.89065	0.89251	0.89435	0.89617	0.89796	0.89973	0.90147
1.3	0.90320	0.90490	0.90658	0.90824	0.90988	0.91149	0.91309	0.91466	0.91621	0.91774
1.4	0.91924	0.92073	0.92220	0.92364	0.92507	0.92647	0.92786	0.92922	0.93056	0.93189
1.5	0.93319	0.93448	0.93574	0.93699	0.93822	0.93943	0.94062	0.94179	0.94295	0.94408
1.6	0.94520	0.94630	0.94738	0.94845	0.94950	0.95053	0.95154	0.95254	0.95352	0.95449
1.7	0.95543	0.95637	0.95728	0.95818	0.95907	0.95994	0.96080	0.96164	0.96246	0.96327
1.8	0.96407	0.96485	0.96562	0.96638	0.96712	0.96784	0.96856	0.96926	0.96995	0.97062
1.9	0.97128	0.97193	0.97257	0.97320	0.97381	0.97441	0.97500	0.97558	0.97615	0.97670
2.0	0.97725	0.97778	0.97831	0.97882	0.97932	0.97982	0.98030	0.98077	0.98124	0.98169
2.1	0.98214	0.98257	0.98300	0.98341	0.98382	0.98422	0.98461	0.98500	0.98537	0.98574
2.2	0.98610	0.98645	0.98679	0.98713	0.98745	0.98778	0.98809	0.98840	0.98870	0.98899
2.3	0.98928	0.98956	0.98983	0.99010	0.99036	0.99061	0.99085	0.99111	0.99134	0.99158
2.4	0.99180	0.99202	0.99224	0.99245	0.99266	0.99286	0.99305	0.99324	0.99343	0.99361
2.5	0.99379	0.99396	0.99413	0.99430	0.99446	0.99461	0.99477	0.99492	0.99506	0.99520
2.6	0.99534	0.99547	0.99560	0.99573	0.99585	0.99598	0.99611	0.99621	0.99632	0.99643
2.7	0.99653	0.99664	0.99674	0.99683	0.99693	0.99702	0.99711	0.99720	0.99728	0.99736
2.8	0.99744	0.99752	0.99760	0.99767	0.99774	0.99781	0.99788	0.99795	0.99801	0.99807
2.9	0.99813	0.99819	0.99825	0.99831	0.99836	0.99841	0.99848	0.99851	0.99856	0.99861
3.0	0.99865	0.99869	0.99874	0.99878	0.99882	0.99886	0.99892	0.99893	0.99897	0.99900
3.1	0.99903	0.99906	0.99910	0.99913	0.99916	0.99918	0.99921	0.99924	0.99926	0.99929
3.2	0.99931	0.99934	0.99936	0.99938	0.99940	0.99942	0.99943	0.99946	0.99948	0.99950
3.3	0.99952	0.99953	0.99957	0.99957	0.99958	0.99960	0.99961	0.99962	0.99964	0.99965
3.4	0.99966	0.99968	0.99969	0.99970	0.99971	0.99972	0.99973	0.99974	0.99975	0.99976
3.5	0.99977	0.99978	0.99978	0.99979	0.99980	0.99981	0.99981	0.99982	0.99983	0.99983
3.6	0.99984	0.99985	0.99985	0.99986	0.99986	0.99987	0.99987	0.99988	0.99988	0.99989
3.7	0.99989	0.99990	0.99990	0.99990	0.99991	0.99991	0.99992	0.99992	0.99992	0.99992
3.8	0.99993	0.99993	0.99993	0.99994	0.99994	0.99994	0.99994	0.99995	0.99995	0.99995
3.9	0.99995	0.99995	0.99996	0.99996	0.99996	0.99996	0.99996	0.99996	0.99997	0.99997

ΠΙΝΑΚΑΣ 3. ΠΟΣΟΣΤΙΑΙΑ ΣΗΜΕΙΑ ΤΗΣ ΚΑΤΑΝΟΜΗΣ χ^2

Τιμές του $\chi^2_{\nu, P}$ τέτοιες ώστε

$$P = \frac{1}{2^{\nu/2} \Gamma(\nu/2)} \int_0^{\chi^2_{\nu, P}} y^{\nu/2-1} e^{-y/2} dy$$



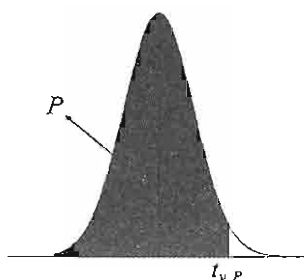
$\nu \backslash P$	0.005	0.010	0.025	0.050	0.100	0.250	0.500
1	0.00004	0.00016	0.00098	0.00393	0.01579	0.1015	0.4549
2	0.0100	0.0201	0.0506	0.1026	0.2107	0.5754	1.386
3	0.0717	0.1148	0.2158	0.3518	0.5844	1.213	2.366
4	0.2070	0.2971	0.48744	0.7107	1.064	1.923	3.357
5	0.4117	0.5543	0.8312	1.145	1.610	2.675	4.351
6	0.6757	0.8721	1.2373	1.635	2.204	3.455	5.348
7	0.9893	1.239	1.690	2.167	2.233	4.255	6.346
8	1.344	1.646	2.180	2.733	3.490	5.071	7.344
9	1.735	2.088	2.700	3.325	4.168	5.899	8.343
10	2.156	2.558	3.247	3.940	4.865	6.737	9.342
11	2.603	3.053	3.816	4.575	5.578	7.584	10.34
12	3.074	3.571	4.404	5.226	6.304	8.438	11.34
13	3.565	4.107	5.009	5.892	7.041	9.299	12.34
14	4.075	4.660	5.629	6.571	7.790	10.17	13.34
15	4.601	5.229	6.262	7.261	8.547	11.04	14.34
16	5.142	5.812	6.908	7.962	9.312	11.91	15.34
17	5.697	6.408	7.564	8.672	10.09	12.79	16.34
18	6.265	7.015	8.231	9.390	10.86	13.68	17.34
19	6.844	7.633	8.907	10.12	11.65	14.56	18.34
20	7.434	8.260	9.591	10.85	12.44	15.45	19.34
21	8.034	8.897	10.28	11.59	13.24	16.34	20.34
22	8.643	9.542	10.98	12.34	14.04	17.24	21.34
23	9.260	10.20	11.69	13.09	14.85	18.14	22.34
24	9.886	10.86	12.40	13.85	15.66	19.04	23.34
25	10.52	11.52	13.12	14.61	16.47	19.94	24.34
26	11.16	12.20	13.84	15.38	17.29	20.84	25.34
27	11.81	12.88	14.57	16.15	18.11	21.75	26.34
28	12.46	13.56	15.31	16.93	18.94	22.66	27.34
29	13.12	14.26	16.05	17.71	19.77	23.57	28.34
30	13.79	14.95	16.79	18.49	20.60	24.48	29.34
40	20.71	22.16	24.43	26.51	29.05	33.66	39.34
50	27.99	29.71	32.36	34.76	37.69	42.94	49.33
60	35.53	37.48	40.48	43.19	46.46	52.29	59.33
70	43.28	45.44	48.76	51.74	55.33	61.70	69.33
80	51.17	53.54	57.15	60.39	64.28	71.14	79.33
90	59.20	61.75	65.65	69.13	73.29	80.62	89.33
100	67.33	70.06	74.22	77.93	82.36	90.13	99.33

ΠΙΝΑΚΑΣ 3. (Συνέχεια)

$\nu \backslash P$	0.750	0.900	0.950	0.975	0.990	0.995	0.999
1	1.323	2.706	3.841	5.024	6.635	7.879	10.83
2	2.773	4.605	5.991	7.378	9.210	10.60	13.82
3	4.108	6.251	7.815	9.348	11.34	12.84	16.27
4	5.385	7.779	9.488	11.14	13.28	14.86	18.47
5	6.626	9.326	11.07	12.83	15.09	16.75	20.52
6	7.841	10.64	12.59	14.45	16.81	18.55	22.46
7	9.037	12.02	14.07	16.01	18.48	20.28	24.32
8	10.22	13.36	15.51	17.53	20.09	21.96	26.12
9	11.39	14.68	16.92	19.02	21.67	23.59	27.88
10	12.55	15.99	18.31	20.48	23.21	25.19	29.59
11	13.70	17.28	19.68	21.92	24.72	26.76	31.26
12	14.85	18.55	21.03	23.34	26.22	28.30	32.91
13	15.98	19.81	22.36	24.74	27.69	29.82	34.53
14	17.12	21.06	23.68	26.12	29.14	31.32	36.12
15	18.25	22.31	25.00	27.49	30.58	32.80	37.70
16	19.37	23.54	26.30	28.85	32.00	34.27	39.25
17	20.49	24.77	27.59	30.19	33.41	35.72	40.79
18	21.60	25.99	28.87	31.53	34.81	37.16	42.31
19	22.72	27.20	30.14	32.85	36.19	38.58	43.82
20	23.83	28.41	31.41	34.17	37.57	40.00	45.32
21	24.93	29.62	32.67	35.48	38.93	41.40	46.80
22	26.04	30.81	33.92	36.78	40.29	42.80	48.27
23	27.14	32.01	35.17	38.08	41.64	44.18	49.73
24	28.24	33.20	36.42	39.36	42.98	45.56	51.18
25	29.34	34.38	37.65	40.65	44.31	46.93	52.62
26	30.43	35.56	38.89	41.92	45.64	48.29	54.05
27	31.53	36.74	40.11	43.19	46.96	49.64	55.48
28	32.62	37.92	41.34	44.46	48.28	50.99	56.89
29	33.71	39.09	42.56	45.72	49.59	52.34	58.30
30	34.80	40.26	43.77	46.98	50.89	53.67	59.70
40	45.62	51.80	55.76	59.34	63.69	66.77	73.40
50	56.33	63.17	67.50	71.42	76.15	79.49	86.66
60	66.98	74.40	79.08	83.30	88.38	91.95	99.61
70	77.58	85.53	90.53	95.02	100.4	104.2	112.3
80	88.13	96.58	101.9	106.6	112.3	116.3	124.8
90	98.65	107.6	113.1	118.1	124.1	128.3	137.2
100	109.1	118.5	124.3	129.6	135.8	140.2	149.4

ΠΙΝΑΚΑΣ 4. ΠΟΣΟΣΤΙΑΙΑ ΣΗΜΕΙΑ ΤΗΣ ΚΑΤΑΝΟΜΗΣ t ΤΟΥ STUDENTΤιμές του $t_{v,P}$ τέτοιες ώστε

$$P = \int_{-\infty}^{t_{v,P}} \frac{1}{\sqrt{\nu\pi}} \frac{\Gamma\left(\frac{\nu+1}{2}\right)}{\Gamma\left(\frac{\nu}{2}\right)} \left(1 + \frac{t^2}{\nu}\right)^{-\frac{\nu+1}{2}} dt$$

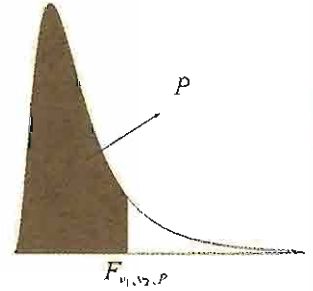


$\begin{matrix} P \\ \backslash \\ \nu \end{matrix}$	0.750	0.900	0.950	0.975	0.990	0.995	0.999	0.9995
1	1.000	3.078	6.314	12.706	31.821	63.657	318.310	636.620
2	0.816	1.886	2.920	4.303	6.965	9.925	22.326	31.598
3	0.765	1.638	2.353	3.182	4.541	5.841	10.213	12.924
4	0.741	1.533	2.132	2.776	3.747	4.604	7.173	8.610
5	0.727	1.476	2.015	2.571	3.365	4.032	5.893	6.869
6	0.718	1.440	1.943	2.447	3.143	3.707	5.208	5.959
7	0.711	1.415	1.895	2.365	2.998	3.499	4.785	5.408
8	0.706	1.397	1.860	2.306	2.896	3.355	4.501	5.041
9	0.703	1.383	1.833	2.262	2.821	3.250	4.297	4.781
10	0.700	1.372	1.812	2.228	2.764	3.169	4.144	4.587
11	0.697	1.363	1.796	2.201	2.718	3.106	4.025	4.437
12	0.695	1.356	1.782	2.179	2.681	3.055	3.930	4.318
13	0.694	1.350	1.771	2.160	2.650	3.012	3.852	4.221
14	0.692	1.345	1.761	2.145	2.624	2.977	3.787	4.140
15	0.691	1.341	1.753	2.131	2.602	2.947	3.733	4.073
16	0.690	1.337	1.746	2.120	2.583	2.921	3.686	4.015
17	0.689	1.333	1.740	2.110	2.567	2.898	3.646	3.965
18	0.688	1.330	1.734	2.101	2.552	2.878	3.610	3.922
19	0.688	1.328	1.729	2.093	2.539	2.861	3.579	3.883
20	0.687	1.325	1.725	2.086	2.528	2.845	3.552	3.850
21	0.686	1.323	1.721	2.080	2.518	2.831	3.527	3.819
22	0.686	1.321	1.717	2.074	2.508	2.819	3.505	3.792
23	0.685	1.319	1.714	2.069	2.500	2.807	3.485	3.767
24	0.685	1.318	1.711	2.064	2.492	2.797	3.467	3.745
25	0.684	1.316	1.708	2.060	2.485	2.787	3.450	3.725
26	0.684	1.315	1.706	2.056	2.479	2.779	3.435	3.707
27	0.684	1.314	1.703	2.052	2.473	2.771	3.421	3.690
28	0.683	1.313	1.701	2.048	2.467	2.763	3.408	3.674
29	0.683	1.311	1.699	2.045	2.462	2.756	3.396	3.659
30	0.683	1.310	1.697	2.042	2.457	2.750	3.385	3.646
40	0.681	1.303	1.684	2.021	2.423	2.704	3.307	3.551
60	0.679	1.296	1.671	2.000	2.390	2.660	3.232	3.460
120	0.677	1.289	1.658	1.980	2.358	2.617	3.160	3.373
∞	0.674	1.282	1.645	1.960	2.326	2.576	3.090	3.291

ΠΙΝΑΚΑΣ 5. ΠΟΣΟΣΤΙΑΙΑ ΣΗΜΑΙΑ ΤΗΣ ΚΑΤΑΝΟΜΗΣ F ΤΟΥ SNEDECOR

Τιμές του $F_{\nu_1, \nu_2, P}$ τέτοιες ώστε

$$P = \frac{1}{B(\nu_1/2, \nu_2/2)} \int_0^{F_{\nu_1, \nu_2, P}} g^{\nu_1/2-1} (1+g)^{-(\nu_1+\nu_2)/2} dg$$



$P = 0.995$

$\nu_1 \backslash \nu_2$	1	2	3	4	5	6	7	8	9
1	16210.72	19999.50	21614.74	22499.58	23055.79	23437.11	23714.56	23925.40	24091.00
2	198.5013	199.0000	199.1664	199.2497	199.2997	199.3330	199.3568	199.3746	199.3885
3	55.5520	49.7993	47.4672	46.1946	45.3916	44.8385	44.4341	44.1256	43.8824
4	31.3328	26.2843	24.2591	23.1545	22.4564	21.9746	21.6217	21.3520	21.1391
5	22.7848	18.3138	16.5298	15.5561	14.9396	14.5133	14.2004	13.9610	13.7716
6	18.6350	14.5441	12.9166	12.0275	11.4637	11.0730	10.7859	10.5658	10.3915
7	16.2356	12.4040	10.8824	10.0505	9.5221	9.1553	8.8854	8.6781	8.5138
8	14.6882	11.0424	9.5965	8.8051	8.3018	7.9520	7.6941	7.4959	7.3386
9	13.6136	10.1067	8.7171	7.9559	7.4712	7.1339	6.8849	6.6933	6.5411
10	12.8265	9.4270	8.0807	7.3428	6.8724	6.5446	6.3025	6.1159	5.9676
11	12.2263	8.9122	7.6004	6.8809	6.4217	6.1016	5.8648	5.6821	5.5368
12	11.7542	8.5096	7.2258	6.5211	6.0711	5.7570	5.5245	5.3451	5.2021
13	11.3735	8.1865	6.9258	6.2335	5.7910	5.4819	5.2529	5.0761	4.9351
14	11.0603	7.9216	6.6804	5.9984	5.5623	5.2574	5.0313	4.8566	4.7173
15	10.7980	7.7008	6.4760	5.8029	5.3721	5.0708	4.8473	4.6744	4.5364
16	10.5755	7.5138	6.3034	5.6378	5.2117	4.9134	4.6920	4.5207	4.3838
17	10.3842	7.3536	6.1556	5.4967	5.0746	4.7789	4.5594	4.3894	4.2535
18	10.2181	7.2148	6.0278	5.3746	4.9560	4.6627	4.4448	4.2759	4.1410
19	10.0725	7.0935	5.9161	5.2681	4.8526	4.5614	4.3448	4.1770	4.0428
20	9.9439	6.9865	5.8177	5.1743	4.7616	4.4721	4.2569	4.0900	3.9564
21	9.8295	6.8914	5.7304	5.0911	4.6809	4.3931	4.1789	4.0128	3.8799
22	9.7271	6.8064	5.6524	5.0168	4.6088	4.3225	4.1094	3.9440	3.8116
23	9.6348	6.7300	5.5823	4.9500	4.5441	4.2591	4.0469	3.8822	3.7502
24	9.5513	6.6609	5.5190	4.8898	4.4857	4.2019	3.9905	3.8264	3.6949
25	9.4753	6.5982	5.4615	4.8351	4.4327	4.1500	3.9394	3.7758	3.6447
26	9.4059	6.5410	5.4091	4.7852	4.3844	4.1027	3.8928	3.7297	3.5989
27	9.3423	6.4885	5.3611	4.7396	4.3402	4.0594	3.8501	3.6875	3.5571
28	9.2838	6.4403	5.3170	4.6977	4.2996	4.0197	3.8110	3.6487	3.5186
29	9.2297	6.3958	5.2764	4.6591	4.2622	3.9831	3.7749	3.6131	3.4832
30	9.1797	6.3547	5.2388	4.6234	4.2276	3.9492	3.7416	3.5801	3.4505
40	8.8279	6.0664	4.9758	4.3738	3.9860	3.7129	3.5088	3.3498	3.2220
60	8.4946	5.7950	4.7290	4.1399	3.7599	3.4918	3.2911	3.1344	3.0083
120	8.1788	5.5393	4.4972	3.9207	3.5482	3.2849	3.0874	2.9330	2.8083
∞	7.8794	5.2983	4.2794	3.7151	3.3499	3.0913	2.8968	2.7444	2.6210

ΠΙΝΑΚΑΣ 5 (Συνέχεια)

$$P = 0.995$$

$\nu_1 \backslash \nu_2$	10	11	12	13	14	15	16	17	18
1	24224.48	24334.35	24426.36	24504.53	24571.76	24630.20	24681.46	24726.79	24767.17
2	199.3996	199.4087	199.4163	199.4227	199.4282	199.4329	199.4371	199.4408	199.4440
3	43.6858	43.5236	43.3874	43.2715	43.1716	43.0847	43.0083	42.9407	42.8804
4	20.9667	20.8243	20.7047	20.6027	20.5148	20.4383	20.3710	20.3113	20.2581
5	13.6182	13.4912	13.3845	13.2934	13.2148	13.1463	13.0861	13.0327	12.9850
6	10.2500	10.1329	10.0343	9.9501	9.8774	9.8140	9.7582	9.7086	9.6644
7	8.3803	8.2697	8.1764	8.0967	8.0279	7.9678	7.9148	7.8678	7.8258
8	7.2106	7.1045	7.0149	6.9384	6.8721	6.8143	6.7633	6.7180	6.6775
9	6.4172	6.3142	6.2274	6.1530	6.0887	6.0325	5.9829	5.9388	5.8994
10	5.8467	5.7462	5.6613	5.5887	5.5257	5.4707	5.4221	5.3789	5.3403
11	5.4183	5.3197	5.2363	5.1649	5.1031	5.0489	5.0011	4.9586	4.9205
12	5.0855	4.9884	4.9062	4.8358	4.7748	4.7213	4.6741	4.6321	4.5945
13	4.8199	4.7240	4.6429	4.5733	4.5129	4.4600	4.4132	4.3716	4.3344
14	4.6034	4.5085	4.4281	4.3591	4.2993	4.2468	4.2005	4.1592	4.1221
15	4.4235	4.3295	4.2497	4.1813	4.1219	4.0698	4.0237	3.9827	3.9459
16	4.2719	4.1785	4.0994	4.0314	3.9723	3.9205	3.8747	3.8338	3.7972
17	4.1424	4.0496	3.9709	3.9033	3.8445	3.7929	3.7473	3.7066	3.6701
18	4.0305	3.9382	3.8599	3.7926	3.7341	3.6827	3.6373	3.5967	3.5603
19	3.9329	3.8410	3.7631	3.6961	3.6378	3.5866	3.5412	3.5008	3.4645
20	3.8470	3.7555	3.6779	3.6111	3.5530	3.5020	3.4568	3.4164	3.3802
21	3.7709	3.6798	3.6024	3.5358	3.4779	3.4270	3.3818	3.3416	3.3054
22	3.7030	3.6122	3.5350	3.4686	3.4108	3.3600	3.3150	3.2748	3.2387
23	3.6420	3.5515	3.4745	3.4083	3.3506	3.2999	3.2549	3.2148	3.1787
24	3.5870	3.4967	3.4199	3.3538	3.2962	3.2456	3.2007	3.1606	3.1246
25	3.5371	3.4470	3.3704	3.3044	3.2469	3.1963	3.1515	3.1114	3.0754
26	3.4916	3.4017	3.3252	3.2594	3.2020	3.1515	3.1067	3.0666	3.0306
27	3.4499	3.3602	3.2839	3.2182	3.1608	3.1104	3.0656	3.0256	2.9896
28	3.4117	3.3222	3.2460	3.1803	3.1231	3.0727	3.0279	2.9879	2.9520
29	3.3765	3.2871	3.2110	3.1454	3.0882	3.0379	2.9932	2.9532	2.9173
30	3.3440	3.2547	3.1787	3.1132	3.0560	3.0057	2.9611	2.9211	2.8852
40	3.1167	3.0284	2.9531	2.8880	2.8312	2.7811	2.7365	2.6966	2.6607
60	2.9042	2.8166	2.7419	2.6771	2.6205	2.5705	2.5259	2.4859	2.4498
120	2.7052	2.6183	2.5439	2.4794	2.4228	2.3727	2.3280	2.2878	2.2514
∞	2.5188	2.4324	2.3583	2.2938	2.2371	2.1868	2.1417	2.1011	2.0642

ΠΙΝΑΚΑΣ 5 (Συνέχεια)

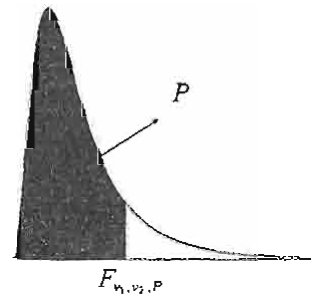
$$P = 0,995$$

$\nu_1 \backslash \nu_2$	19	20	24	30	40	60	120
1	24803.35	24835.97	24939.56	25043.62	25148.15	25253.13	25358.57
2	199.4470	199.4496	199.4579	199.4663	199.4746	199.4829	199.4912
3	42.8263	42.7775	42.6222	42.4658	42.3082	42.1494	41.9895
4	20.2104	20.1673	20.0300	19.8915	19.7518	19.6107	19.4684
5	12.9422	12.9035	12.7802	12.6556	12.5297	12.4024	12.2737
6	9.6247	9.5888	9.4742	9.3582	9.2408	9.1219	9.0015
7	7.7881	7.7540	7.6450	7.5345	7.4224	7.3088	7.1933
8	6.6411	6.6082	6.5029	6.3961	6.2875	6.1772	6.0649
9	5.8639	5.8318	5.7292	5.6248	5.5186	5.4104	5.3001
10	5.3055	5.2740	5.1732	5.0706	4.9659	4.8592	4.7501
11	4.8863	4.8552	4.7557	4.6543	4.5508	4.4450	4.3367
12	4.5606	4.5299	4.4314	4.3309	4.2282	4.1229	4.0149
13	4.3008	4.2703	4.1726	4.0727	3.9704	3.8655	3.7577
14	4.0888	4.0585	3.9614	3.8619	3.7600	3.6552	3.5473
15	3.9127	3.8826	3.7859	3.6867	3.5850	3.4803	3.3722
16	3.7641	3.7342	3.6378	3.5389	3.4372	3.3324	3.2240
17	3.6372	3.6073	3.5112	3.4124	3.3108	3.2058	3.0971
18	3.5275	3.4977	3.4017	3.3030	3.2014	3.0962	2.9871
19	3.4318	3.4020	3.3062	3.2075	3.1058	3.0004	2.8908
20	3.3475	3.3178	3.2220	3.1234	3.0215	2.9159	2.8058
21	3.2728	3.2431	3.1474	3.0488	2.9467	2.8408	2.7302
22	3.2060	3.1764	3.0807	2.9821	2.8799	2.7736	2.6625
23	3.1461	3.1165	3.0208	2.9221	2.8197	2.7132	2.6015
24	3.0920	3.0624	2.9667	2.8679	2.7654	2.6585	2.5463
25	3.0429	3.0133	2.9176	2.8187	2.7160	2.6088	2.4961
26	2.9981	2.9685	2.8728	2.7738	2.6709	2.5633	2.4501
27	2.9571	2.9275	2.8318	2.7327	2.6296	2.5217	2.4079
28	2.9194	2.8899	2.7941	2.6949	2.5916	2.4834	2.3690
29	2.8847	2.8551	2.7594	2.6600	2.5565	2.4479	2.3331
30	2.8526	2.8230	2.7272	2.6278	2.5241	2.4151	2.2998
40	2.6281	2.5984	2.5020	2.4015	2.2958	2.1838	2.0636
60	2.4171	2.3872	2.2898	2.1874	2.0789	1.9622	1.8341
120	2.2183	2.1881	2.0890	1.9840	1.8709	1.7469	1.6055
∞	2.0306	1.9998	1.8983	1.7891	1.6691	1.5325	1.3637

ΠΙΝΑΚΑΣ 5 (Συνέχεια)

Τιμές του $F_{v_1, v_2, P}$ τέτοιες ώστε

$$P = \frac{1}{B(v_1/2, v_2/2)} \int_0^{v_1 \cdot F_{v_1, v_2, P} / v_2} g^{v_1/2-1} (1+g)^{-(v_1+v_2)/2} dg$$



$P = 0.99$

$v_1 \backslash v_2$	1	2	3	4	5	6	7	8	9
1	4052.18	4999.50	5403.35	5624.58	5763.64	5858.98	5928.35	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
40	7.3141	5.1785	4.3126	3.8283	3.5138	3.2910	3.1238	2.9930	2.8876
60	7.0771	4.9774	4.1259	3.6490	3.3389	3.1187	2.9530	2.8233	2.7185
120	6.8509	4.7865	3.9491	3.4795	3.1735	2.9559	2.7918	2.6629	2.5586
∞	6.6349	4.6052	3.7816	3.3192	3.0173	2.8020	2.6393	2.5113	2.4073

ΠΙΝΑΚΑΣ 5 (Συνέχεια)

 $P = 0.99$

$v_1 \backslash v_2$	10	11	12	13	14	15	16	17	18
1	6055.84	6083.31	6106.32	6125.86	6142.67	6157.28	6170.10	6181.43	6191.52
2	99.3992	99.4083	99.4159	99.4223	99.4278	99.4325	99.4367	99.4404	99.4436
3	27.2287	27.1326	27.0518	26.9831	26.9238	26.8722	26.8269	26.7867	26.7509
4	14.5459	14.4523	14.3736	14.3065	14.2486	14.1982	14.1539	14.1146	14.0795
5	10.0510	9.9626	9.8883	9.8248	9.7700	9.7222	9.6802	9.6429	9.6096
6	7.8741	7.7896	7.7183	7.6575	7.6049	7.5590	7.5186	7.4827	7.4507
7	6.6201	6.5382	6.4691	6.4100	6.3590	6.3143	6.2750	6.2401	6.2089
8	5.8143	5.7343	5.6667	5.6089	5.5589	5.5151	5.4766	5.4423	5.4116
9	5.2565	5.1779	5.1114	5.0545	5.0052	4.9621	4.9240	4.8902	4.8599
10	4.8491	4.7715	4.7059	4.6496	4.6008	4.5581	4.5204	4.4869	4.4569
11	4.5393	4.4624	4.3974	4.3416	4.2932	4.2509	4.2134	4.1801	4.1503
12	4.2961	4.2198	4.1553	4.0999	4.0518	4.0096	3.9724	3.9392	3.9095
13	4.1003	4.0245	3.9603	3.9052	3.8573	3.8154	3.7783	3.7452	3.7156
14	3.9394	3.8640	3.8001	3.7452	3.6975	3.6557	3.6187	3.5857	3.5561
15	3.8049	3.7299	3.6662	3.6115	3.5639	3.5222	3.4852	3.4523	3.4228
16	3.6909	3.6162	3.5527	3.4981	3.4506	3.4089	3.3720	3.3391	3.3096
17	3.5931	3.5185	3.4552	3.4007	3.3533	3.3117	3.2748	3.2419	3.2124
18	3.5082	3.4338	3.3706	3.3162	3.2689	3.2273	3.1904	3.1575	3.1280
19	3.4338	3.3596	3.2965	3.2422	3.1949	3.1533	3.1165	3.0836	3.0541
20	3.3682	3.2941	3.2311	3.1769	3.1296	3.0880	3.0512	3.0183	2.9887
21	3.3098	3.2359	3.1730	3.1187	3.0715	3.0300	2.9931	2.9602	2.9306
22	3.2576	3.1837	3.1209	3.0667	3.0195	2.9779	2.9411	2.9082	2.8786
23	3.2106	3.1368	3.0740	3.0199	2.9727	2.9311	2.8943	2.8613	2.8317
24	3.1681	3.0944	3.0316	2.9775	2.9303	2.8887	2.8519	2.8189	2.7892
25	3.1294	3.0558	2.9931	2.9389	2.8917	2.8502	2.8133	2.7803	2.7506
26	3.0941	3.0205	2.9578	2.9038	2.8566	2.8150	2.7781	2.7451	2.7153
27	3.0618	2.9882	2.9256	2.8715	2.8243	2.7827	2.7458	2.7127	2.6830
28	3.0320	2.9585	2.8959	2.8418	2.7946	2.7530	2.7160	2.6830	2.6532
29	3.0045	2.9311	2.8685	2.8144	2.7672	2.7256	2.6886	2.6555	2.6257
30	2.9791	2.9057	2.8431	2.7890	2.7418	2.7002	2.6632	2.6301	2.6003
40	2.8005	2.7274	2.6648	2.6107	2.5634	2.5216	2.4844	2.4511	2.4210
60	2.6318	2.5587	2.4961	2.4419	2.3943	2.3523	2.3148	2.2811	2.2507
120	2.4721	2.3990	2.3363	2.2818	2.2339	2.1915	2.1536	2.1194	2.0885
∞	2.3209	2.2477	2.1847	2.1299	2.0815	2.0385	2.0000	1.9652	1.9336

ΠΙΝΑΚΑΣ 5 (Συνέχεια)

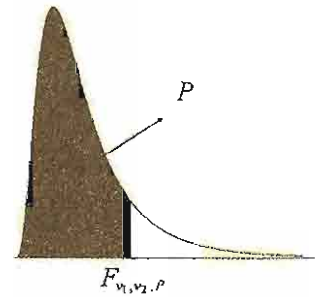
$$P = 0.99$$

$\nu_1 \backslash \nu_2$	19	20	24	30	40	60	120
1	6200.57	6208.73	6234.63	6260.64	6286.78	6313.03	6339.39
2	99.4465	99.4492	99.4575	99.4658	99.4742	99.4825	99.4908
3	26.7188	26.6898	26.5975	26.5045	26.4108	26.3164	26.2211
4	14.0480	14.0196	13.9291	13.8377	13.7454	13.6522	13.5581
5	9.5797	9.5526	9.4665	9.3793	9.2912	9.2020	9.1118
6	7.4219	7.3958	7.3127	7.2285	7.1432	7.0567	6.9690
7	6.1808	6.1554	6.0743	5.9920	5.9084	5.8236	5.7373
8	5.3840	5.3591	5.2793	5.1981	5.1156	5.0316	4.9461
9	4.8327	4.8080	4.7290	4.6486	4.5666	4.4831	4.3978
10	4.4299	4.4054	4.3269	4.2469	4.1653	4.0819	3.9965
11	4.1234	4.0990	4.0209	3.9411	3.8596	3.7761	3.6904
12	3.8827	3.8584	3.7805	3.7008	3.6192	3.5355	3.4494
13	3.6888	3.6646	3.5868	3.5070	3.4253	3.3413	3.2548
14	3.5294	3.5052	3.4274	3.3476	3.2656	3.1813	3.0942
15	3.3961	3.3719	3.2940	3.2141	3.1319	3.0471	2.9595
16	3.2829	3.2587	3.1808	3.1007	3.0182	2.9330	2.8447
17	3.1857	3.1615	3.0835	3.0032	2.9205	2.8348	2.7459
18	3.1013	3.0771	2.9990	2.9185	2.8354	2.7493	2.6597
19	3.0274	3.0031	2.9249	2.8442	2.7608	2.6742	2.5839
20	2.9620	2.9377	2.8594	2.7785	2.6947	2.6077	2.5168
21	2.9039	2.8796	2.8010	2.7200	2.6359	2.5484	2.4568
22	2.8518	2.8274	2.7488	2.6675	2.5831	2.4951	2.4029
23	2.8049	2.7805	2.7017	2.6202	2.5355	2.4471	2.3542
24	2.7624	2.7380	2.6591	2.5773	2.4923	2.4035	2.3100
25	2.7238	2.6993	2.6203	2.5383	2.4530	2.3637	2.2696
26	2.6885	2.6640	2.5848	2.5026	2.4170	2.3273	2.2325
27	2.6561	2.6316	2.5522	2.4699	2.3840	2.2938	2.1985
28	2.6263	2.6017	2.5223	2.4397	2.3535	2.2629	2.1670
29	2.5987	2.5742	2.4946	2.4118	2.3253	2.2344	2.1379
30	2.5732	2.5487	2.4689	2.3860	2.2992	2.2079	2.1108
40	2.3937	2.3689	2.2880	2.2034	2.1142	2.0194	1.9172
60	2.2230	2.1978	2.1154	2.0285	1.9360	1.8363	1.7263
120	2.0604	2.0346	1.9500	1.8600	1.7628	1.6557	1.5330
∞	1.9048	1.8783	1.7908	1.6964	1.5923	1.4730	1.3246

ΠΙΝΑΚΑΣ 5 (Συνέχεια)

Τιμές του $F_{\nu_1, \nu_2, P}$ τέτοιες ώστε

$$P = \frac{1}{B(\nu_1/2, \nu_2/2)} \int_0^{\nu_1 F_{\nu_1, \nu_2, P} / \nu_2} g^{\nu_1/2-1} (1+g)^{-(\nu_1+\nu_2)/2} dg$$

 $P = 0.975$

$\nu_1 \backslash \nu_2$	1	2	3	4	5	6	7	8	9
1	647.789	799.500	864.163	899.583	921.847	937.111	948.216	956.656	963.284
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	10.0070	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	4.8232
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
40	5.4239	4.0510	3.4633	3.1261	2.9037	2.7444	2.6238	2.5289	2.4519
60	5.2856	3.9253	3.3425	3.0077	2.7863	2.6274	2.5068	2.4117	2.3344
120	5.1523	3.8046	3.2269	2.8943	2.6740	2.5154	2.3948	2.2994	2.2217
∞	5.0239	3.6889	3.1161	2.7858	2.5665	2.4082	2.2875	2.1918	2.1136

ΠΙΝΑΚΑΣ 5 (Συνέχεια)

$$P = 0.975$$

$\nu_1 \backslash \nu_2$	10	11	12	13	14	15	16	17	18
1	968.627	973.025	976.707	979.836	982.527	984.866	986.918	988.733	990.349
2	39.3980	39.4071	39.4146	39.4210	39.4265	39.4313	39.4354	39.4391	39.4424
3	14.4189	14.3742	14.3366	14.3045	14.2768	14.2527	14.2315	14.2127	14.1960
4	8.8439	8.7935	8.7512	8.7150	8.6838	8.6565	8.6326	8.6113	8.5924
5	6.6192	6.5678	6.5245	6.4876	6.4556	6.4277	6.4032	6.3814	6.3619
6	5.4613	5.4098	5.3662	5.3290	5.2968	5.2687	5.2439	5.2218	5.2021
7	4.7611	4.7095	4.6658	4.6285	4.5961	4.5678	4.5428	4.5206	4.5008
8	4.2951	4.2434	4.1997	4.1622	4.1297	4.1012	4.0761	4.0538	4.0338
9	3.9639	3.9121	3.8682	3.8306	3.7980	3.7694	3.7441	3.7216	3.7015
10	3.7168	3.6649	3.6209	3.5832	3.5504	3.5217	3.4963	3.4737	3.4534
11	3.5257	3.4737	3.4296	3.3917	3.3588	3.3299	3.3044	3.2816	3.2612
12	3.3736	3.3215	3.2773	3.2393	3.2062	3.1772	3.1515	3.1286	3.1081
13	3.2497	3.1975	3.1532	3.1150	3.0819	3.0527	3.0269	3.0039	2.9832
14	3.1469	3.0946	3.0502	3.0119	2.9786	2.9493	2.9234	2.9003	2.8795
15	3.0602	3.0078	2.9633	2.9249	2.8915	2.8621	2.8360	2.8128	2.7919
16	2.9862	2.9337	2.8890	2.8506	2.8170	2.7875	2.7614	2.7380	2.7170
17	2.9222	2.8696	2.8249	2.7863	2.7526	2.7230	2.6968	2.6733	2.6522
18	2.8664	2.8137	2.7689	2.7302	2.6964	2.6667	2.6404	2.6168	2.5956
19	2.8172	2.7645	2.7196	2.6808	2.6469	2.6171	2.5907	2.5670	2.5457
20	2.7737	2.7209	2.6758	2.6369	2.6030	2.5731	2.5465	2.5228	2.5014
21	2.7348	2.6819	2.6368	2.5978	2.5638	2.5338	2.5071	2.4833	2.4618
22	2.6998	2.6469	2.6017	2.5626	2.5285	2.4984	2.4717	2.4478	2.4262
23	2.6682	2.6152	2.5699	2.5308	2.4966	2.4665	2.4396	2.4157	2.3940
24	2.6396	2.5865	2.5411	2.5019	2.4677	2.4374	2.4105	2.3865	2.3648
25	2.6135	2.5603	2.5149	2.4756	2.4413	2.4110	2.3840	2.3599	2.3381
26	2.5896	2.5363	2.4908	2.4515	2.4171	2.3867	2.3597	2.3355	2.3137
27	2.5676	2.5143	2.4688	2.4293	2.3949	2.3644	2.3373	2.3131	2.2912
28	2.5473	2.4940	2.4484	2.4089	2.3743	2.3438	2.3167	2.2924	2.2704
29	2.5286	2.4752	2.4295	2.3900	2.3554	2.3248	2.2976	2.2732	2.2512
30	2.5112	2.4577	2.4120	2.3724	2.3378	2.3072	2.2799	2.2554	2.2334
40	2.3882	2.3343	2.2882	2.2481	2.2130	2.1819	2.1542	2.1293	2.1068
60	2.2702	2.2159	2.1692	2.1286	2.0929	2.0613	2.0330	2.0076	1.9846
120	2.1570	2.1021	2.0548	2.0136	1.9773	1.9450	1.9161	1.8900	1.8663
∞	2.0483	1.9927	1.9447	1.9027	1.8656	1.8326	1.8028	1.7759	1.7515

ΠΙΝΑΚΑΣ 5 (Συνέχεια)

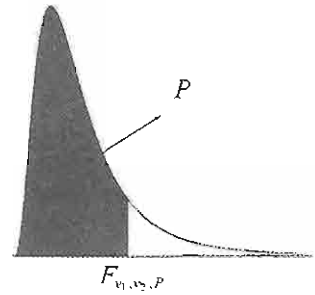
$$P = 0.975$$

$v_1 \backslash v_2$	19	20	24	30	40	60	120
1	991.797	993.102	997.249	1001.41	1005.59	1009.80	1014.02
2	39.4453	39.4479	39.4562	39.4646	39.4729	39.4812	39.4896
3	14.1810	14.1674	14.1241	14.0805	14.0365	13.9921	13.9473
4	8.5753	8.5599	8.5109	8.4613	8.4111	8.3604	8.3092
5	6.3444	6.3286	6.2780	6.2269	6.1750	6.1225	6.0693
6	5.1844	5.1684	5.1172	5.0652	5.0125	4.9589	4.9044
7	4.4829	4.4667	4.4150	4.3624	4.3089	4.2544	4.1989
8	4.0158	3.9995	3.9472	3.8940	3.8398	3.7844	3.7279
9	3.6833	3.6669	3.6142	3.5604	3.5055	3.4493	3.3918
10	3.4351	3.4185	3.3654	3.3110	3.2554	3.1984	3.1399
11	3.2428	3.2261	3.1725	3.1176	3.0613	3.0035	2.9441
12	3.0896	3.0728	3.0187	2.9633	2.9063	2.8478	2.7874
13	2.9646	2.9477	2.8932	2.8372	2.7797	2.7204	2.6590
14	2.8607	2.8437	2.7888	2.7324	2.6742	2.6142	2.5519
15	2.7730	2.7559	2.7006	2.6437	2.5850	2.5242	2.4611
16	2.6980	2.6808	2.6252	2.5678	2.5085	2.4471	2.3831
17	2.6331	2.6158	2.5598	2.5020	2.4422	2.3801	2.3153
18	2.5764	2.5590	2.5027	2.4445	2.3842	2.3214	2.2558
19	2.5265	2.5089	2.4523	2.3937	2.3329	2.2696	2.2032
20	2.4821	2.4645	2.4076	2.3486	2.2873	2.2234	2.1562
21	2.4424	2.4247	2.3675	2.3082	2.2465	2.1819	2.1141
22	2.4067	2.3890	2.3315	2.2718	2.2097	2.1446	2.0760
23	2.3745	2.3567	2.2989	2.2389	2.1763	2.1107	2.0415
24	2.3452	2.3273	2.2693	2.2090	2.1460	2.0799	2.0099
25	2.3184	2.3005	2.2422	2.1816	2.1183	2.0516	1.9811
26	2.2939	2.2759	2.2174	2.1565	2.0928	2.0257	1.9545
27	2.2713	2.2533	2.1946	2.1334	2.0693	2.0018	1.9299
28	2.2505	2.2324	2.1735	2.1121	2.0477	1.9797	1.9072
29	2.2313	2.2131	2.1540	2.0923	2.0276	1.9591	1.8861
30	2.2134	2.1952	2.1359	2.0739	2.0089	1.9400	1.8664
40	2.0864	2.0677	2.0069	1.9429	1.8752	1.8028	1.7242
60	1.9636	1.9445	1.8817	1.8152	1.7440	1.6668	1.5810
120	1.8447	1.8249	1.7597	1.6899	1.6141	1.5299	1.4327
∞	1.7291	1.7085	1.6402	1.5660	1.4835	1.3883	1.2684

ΠΙΝΑΚΑΣ 5 (Συνέχεια)

Τιμές του $F_{\nu_1, \nu_2, P}$ τέτοιες ώστε

$$P = \frac{1}{B(\nu_1/2, \nu_2/2)} \int_0^{F_{\nu_1, \nu_2, P}} g^{\nu_1/2-1} (1+g)^{-(\nu_1+\nu_2)/2} dg$$



$P = 0.95$

$\nu_2 \backslash \nu_1$	1	2	3	4	5	6	7	8	9
1	161.447	199.500	215.707	224.583	230.161	233.986	236.768	238.882	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
40	4.0847	3.2317	2.8387	2.6060	2.4495	2.3359	2.2490	2.1802	2.1240
60	4.0012	3.1504	2.7581	2.5252	2.3683	2.2541	2.1665	2.0970	2.0401
120	3.9201	3.0718	2.6802	2.4472	2.2899	2.1750	2.0868	2.0164	1.9588
∞	3.8415	2.9957	2.6049	2.3719	2.2141	2.0986	2.0096	1.9384	1.8799

ΠΙΝΑΚΑΣ 5 (Συνέχεια)

 $P = 0.95$

$\nu_1 \backslash \nu_2$	10	11	12	13	14	15	16	17	18
1	241.881	242.983	243.906	244.689	245.364	245.949	246.463	246.918	247.323
2	19.3959	19.4050	19.4125	19.4189	19.4244	19.4291	19.4333	19.4370	19.4402
3	8.7855	8.7633	8.7446	8.7287	8.7149	8.7029	8.6923	8.6829	8.6745
4	5.9644	5.9358	5.9117	5.8911	5.8733	5.8578	5.8441	5.8320	5.8211
5	4.7351	4.7040	4.6777	4.6552	4.6358	4.6188	4.6038	4.5904	4.5785
6	4.0600	4.0274	3.9999	3.9764	3.9559	3.9381	3.9223	3.9083	3.8957
7	3.6365	3.6030	3.5747	3.5503	3.5292	3.5107	3.4944	3.4799	3.4669
8	3.3472	3.3130	3.2839	3.2590	3.2374	3.2184	3.2016	3.1867	3.1733
9	3.1373	3.1025	3.0729	3.0475	3.0255	3.0061	2.9890	2.9737	2.9600
10	2.9782	2.9430	2.9130	2.8872	2.8647	2.8450	2.8276	2.8120	2.7980
11	2.8536	2.8179	2.7876	2.7614	2.7386	2.7186	2.7009	2.6851	2.6709
12	2.7534	2.7173	2.6866	2.6602	2.6371	2.6169	2.5989	2.5828	2.5684
13	2.6710	2.6347	2.6037	2.5769	2.5536	2.5331	2.5149	2.4987	2.4841
14	2.6022	2.5655	2.5342	2.5073	2.4837	2.4630	2.4446	2.4282	2.4134
15	2.5437	2.5068	2.4753	2.4481	2.4244	2.4034	2.3849	2.3683	2.3533
16	2.4935	2.4564	2.4247	2.3973	2.3733	2.3522	2.3335	2.3167	2.3016
17	2.4499	2.4126	2.3807	2.3531	2.3290	2.3077	2.2888	2.2719	2.2567
18	2.4117	2.3742	2.3421	2.3143	2.2900	2.2686	2.2496	2.2325	2.2172
19	2.3779	2.3402	2.3080	2.2800	2.2556	2.2341	2.2149	2.1977	2.1823
20	2.3479	2.3100	2.2776	2.2495	2.2250	2.2033	2.1840	2.1667	2.1511
21	2.3210	2.2829	2.2504	2.2222	2.1975	2.1757	2.1563	2.1389	2.1232
22	2.2967	2.2585	2.2258	2.1975	2.1727	2.1508	2.1313	2.1138	2.0980
23	2.2747	2.2364	2.2036	2.1752	2.1502	2.1282	2.1086	2.0910	2.0751
24	2.2547	2.2163	2.1834	2.1548	2.1298	2.1077	2.0880	2.0703	2.0543
25	2.2365	2.1979	2.1649	2.1362	2.1111	2.0889	2.0691	2.0513	2.0353
26	2.2197	2.1811	2.1479	2.1192	2.0939	2.0716	2.0518	2.0339	2.0178
27	2.2043	2.1655	2.1323	2.1035	2.0781	2.0558	2.0358	2.0179	2.0017
28	2.1900	2.1512	2.1179	2.0889	2.0635	2.0411	2.0210	2.0030	1.9868
29	2.1768	2.1379	2.1045	2.0755	2.0500	2.0275	2.0073	1.9893	1.9730
30	2.1646	2.1256	2.0921	2.0630	2.0374	2.0148	1.9946	1.9765	1.9601
40	2.0772	2.0376	2.0035	1.9738	1.9476	1.9245	1.9037	1.8851	1.8682
60	1.9926	1.9522	1.9174	1.8870	1.8602	1.8364	1.8151	1.7959	1.7784
120	1.9105	1.8693	1.8337	1.8026	1.7750	1.7505	1.7285	1.7085	1.6904
∞	1.8307	1.7886	1.7522	1.7202	1.6918	1.6664	1.6435	1.6228	1.6039

ΠΙΝΑΚΑΣ 5 (Συνέχεια)

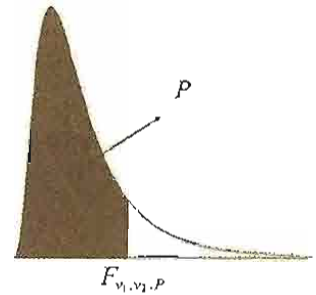
$$P = 0.95$$

$v_1 \backslash v_2$	19	20	24	30	40	60	120
1	247.686	248.013	249.051	250.095	251.143	252.195	253.252
2	19.4431	19.4458	19.4541	19.4624	19.4707	19.4791	19.4874
3	8.6670	8.6602	8.6385	8.6166	8.5944	8.5720	8.5494
4	5.8114	5.8025	5.7744	5.7459	5.7170	5.6877	5.6581
5	4.5678	4.5581	4.5272	4.4957	4.4638	4.4314	4.3985
6	3.8844	3.8742	3.8415	3.8082	3.7743	3.7398	3.7047
7	3.4551	3.4445	3.4105	3.3758	3.3404	3.3043	3.2674
8	3.1613	3.1503	3.1152	3.0794	3.0428	3.0053	2.9669
9	2.9477	2.9365	2.9005	2.8637	2.8259	2.7872	2.7475
10	2.7854	2.7740	2.7372	2.6996	2.6609	2.6211	2.5801
11	2.6581	2.6464	2.6090	2.5705	2.5309	2.4901	2.4480
12	2.5554	2.5436	2.5055	2.4663	2.4259	2.3842	2.3410
13	2.4709	2.4589	2.4202	2.3803	2.3392	2.2966	2.2524
14	2.4000	2.3879	2.3487	2.3082	2.2664	2.2229	2.1778
15	2.3398	2.3275	2.2878	2.2468	2.2043	2.1601	2.1141
16	2.2880	2.2756	2.2354	2.1938	2.1507	2.1058	2.0589
17	2.2429	2.2304	2.1898	2.1477	2.1040	2.0584	2.0107
18	2.2033	2.1906	2.1497	2.1071	2.0629	2.0166	1.9681
19	2.1683	2.1555	2.1141	2.0712	2.0264	1.9795	1.9302
20	2.1370	2.1242	2.0825	2.0391	1.9938	1.9464	1.8963
21	2.1090	2.0960	2.0540	2.0102	1.9645	1.9165	1.8657
22	2.0837	2.0707	2.0283	1.9842	1.9380	1.8894	1.8380
23	2.0608	2.0476	2.0050	1.9605	1.9139	1.8648	1.8128
24	2.0399	2.0267	1.9838	1.9390	1.8920	1.8424	1.7896
25	2.0207	2.0075	1.9643	1.9192	1.8718	1.8217	1.7684
26	2.0032	1.9898	1.9464	1.9010	1.8533	1.8027	1.7488
27	1.9870	1.9736	1.9299	1.8842	1.8361	1.7851	1.7306
28	1.9720	1.9586	1.9147	1.8687	1.8203	1.7689	1.7138
29	1.9581	1.9446	1.9005	1.8543	1.8055	1.7537	1.6981
30	1.9452	1.9317	1.8874	1.8409	1.7918	1.7396	1.6835
40	1.8529	1.8389	1.7929	1.7444	1.6928	1.6373	1.5766
60	1.7625	1.7480	1.7001	1.6491	1.5943	1.5343	1.4673
120	1.6739	1.6587	1.6084	1.5543	1.4952	1.4290	1.3519
∞	1.5865	1.5705	1.5173	1.4591	1.3940	1.3180	1.2214

ΠΙΝΑΚΑΣ 5 (Συνέχεια)

Τιμές του $F_{\nu_1, \nu_2, P}$ τέτοιες ώστε

$$P = \frac{1}{B(\nu_1/2, \nu_2/2)} \int_0^{F_{\nu_1, \nu_2, P}} g^{\nu_1/2-1} (1+g)^{-(\nu_1+\nu_2)/2} dg$$

 $P = 0.90$

$\nu_1 \backslash \nu_2$	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	9.0009	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	2.8595	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
40	2.8354	2.4404	2.2261	2.0910	1.9968	1.9269	1.8725	1.8289	1.7929
60	2.7911	2.3933	2.1774	2.0410	1.9457	1.8747	1.8194	1.7748	1.7380
120	2.7478	2.3473	2.1300	1.9923	1.8959	1.8238	1.7675	1.7220	1.6842
∞	2.7055	2.3026	2.0838	1.9449	1.8473	1.7741	1.7167	1.6702	1.6315

ΠΙΝΑΚΑΣ 5 (Συνέχεια)

$$\hat{P} = 0.90$$

$\nu_1 \backslash \nu_2$	10	11	12	13	14	15	16	17	18
1	60.1950	60.4727	60.7052	60.9028	61.0727	61.2203	61.3499	61.4644	61.5664
2	9.3916	9.4006	9.4081	9.4145	9.4200	9.4247	9.4289	9.4325	9.4358
3	5.2304	5.2224	5.2156	5.2098	5.2047	5.2003	5.1964	5.1929	5.1898
4	3.9199	3.9067	3.8955	3.8859	3.8776	3.8704	3.8639	3.8582	3.8531
5	3.2974	3.2816	3.2682	3.2567	3.2468	3.2380	3.2303	3.2234	3.2172
6	2.9369	2.9195	2.9047	2.8920	2.8809	2.8712	2.8626	2.8550	2.8481
7	2.7025	2.6839	2.6681	2.6545	2.6426	2.6322	2.6230	2.6148	2.6074
8	2.5380	2.5186	2.5020	2.4876	2.4752	2.4642	2.4545	2.4458	2.4380
9	2.4163	2.3961	2.3789	2.3640	2.3510	2.3396	2.3295	2.3205	2.3123
10	2.3226	2.3018	2.2841	2.2687	2.2553	2.2435	2.2330	2.2237	2.2153
11	2.2482	2.2269	2.2087	2.1930	2.1792	2.1671	2.1563	2.1467	2.1380
12	2.1878	2.1660	2.1474	2.1313	2.1173	2.1049	2.0938	2.0839	2.0750
13	2.1376	2.1155	2.0966	2.0802	2.0658	2.0532	2.0419	2.0318	2.0227
14	2.0954	2.0729	2.0537	2.0370	2.0224	2.0095	1.9981	1.9878	1.9785
15	2.0593	2.0366	2.0171	2.0001	1.9853	1.9722	1.9605	1.9501	1.9407
16	2.0281	2.0051	1.9854	1.9682	1.9532	1.9399	1.9281	1.9175	1.9079
17	2.0009	1.9777	1.9577	1.9404	1.9252	1.9117	1.8997	1.8889	1.8792
18	1.9770	1.9535	1.9333	1.9158	1.9004	1.8868	1.8747	1.8638	1.8539
19	1.9557	1.9321	1.9117	1.8940	1.8785	1.8647	1.8524	1.8414	1.8314
20	1.9367	1.9129	1.8924	1.8745	1.8588	1.8449	1.8325	1.8214	1.8113
21	1.9197	1.8956	1.8750	1.8570	1.8412	1.8271	1.8146	1.8034	1.7932
22	1.9043	1.8801	1.8593	1.8411	1.8252	1.8111	1.7984	1.7871	1.7768
23	1.8903	1.8659	1.8450	1.8267	1.8107	1.7964	1.7837	1.7723	1.7619
24	1.8775	1.8530	1.8319	1.8136	1.7974	1.7831	1.7703	1.7587	1.7483
25	1.8658	1.8412	1.8200	1.8015	1.7853	1.7708	1.7579	1.7463	1.7358
26	1.8550	1.8303	1.8090	1.7904	1.7741	1.7596	1.7466	1.7349	1.7243
27	1.8451	1.8203	1.7989	1.7802	1.7638	1.7492	1.7361	1.7243	1.7137
28	1.8359	1.8110	1.7895	1.7708	1.7542	1.7395	1.7264	1.7146	1.7039
29	1.8274	1.8024	1.7808	1.7620	1.7454	1.7306	1.7174	1.7055	1.6947
30	1.8195	1.7944	1.7727	1.7538	1.7371	1.7223	1.7090	1.6970	1.6862
40	1.7627	1.7369	1.7146	1.6950	1.6778	1.6624	1.6486	1.6362	1.6249
60	1.7070	1.6805	1.6574	1.6372	1.6193	1.6034	1.5890	1.5760	1.5642
120	1.6524	1.6250	1.6012	1.5803	1.5617	1.5450	1.5300	1.5164	1.5039
∞	1.5987	1.5705	1.5458	1.5240	1.5046	1.4871	1.4714	1.4570	1.4439

ΠΙΝΑΚΑΣ 5 (Συνέχεια)

 $P = 0.90$

$\nu_1 \backslash \nu_2$	19	20	24	30	40	60	120
1	61.6579	61.7403	62.0020	62.2650	62.5291	62.7943	63.0606
2	9.4387	9.4413	9.4496	9.4579	9.4662	9.4746	9.4829
3	5.1870	5.1845	5.1764	5.1681	5.1597	5.1512	5.1425
4	3.8485	3.8443	3.8310	3.8174	3.8036	3.7896	3.7753
5	3.2117	3.2067	3.1905	3.1741	3.1573	3.1402	3.1228
6	2.8419	2.8363	2.8183	2.8000	2.7812	2.7620	2.7423
7	2.6008	2.5947	2.5753	2.5555	2.5351	2.5142	2.4928
8	2.4310	2.4246	2.4041	2.3830	2.3614	2.3391	2.3162
9	2.3050	2.2983	2.2768	2.2547	2.2320	2.2085	2.1843
10	2.2077	2.2007	2.1784	2.1554	2.1317	2.1072	2.0818
11	2.1302	2.1230	2.1000	2.0762	2.0516	2.0261	1.9997
12	2.0670	2.0597	2.0360	2.0115	1.9861	1.9597	1.9323
13	2.0145	2.0070	1.9827	1.9576	1.9315	1.9043	1.8759
14	1.9701	1.9625	1.9377	1.9119	1.8852	1.8572	1.8280
15	1.9321	1.9243	1.8990	1.8728	1.8454	1.8168	1.7867
16	1.8992	1.8913	1.8656	1.8388	1.8108	1.7816	1.7507
17	1.8704	1.8624	1.8362	1.8090	1.7805	1.7506	1.7191
18	1.8450	1.8368	1.8103	1.7827	1.7537	1.7232	1.6910
19	1.8224	1.8142	1.7873	1.7592	1.7298	1.6988	1.6659
20	1.8022	1.7938	1.7667	1.7382	1.7083	1.6768	1.6433
21	1.7840	1.7756	1.7481	1.7193	1.6890	1.6569	1.6228
22	1.7675	1.7590	1.7312	1.7021	1.6714	1.6389	1.6041
23	1.7525	1.7439	1.7159	1.6864	1.6554	1.6224	1.5871
24	1.7388	1.7302	1.7019	1.6721	1.6407	1.6073	1.5715
25	1.7263	1.7175	1.6890	1.6589	1.6272	1.5934	1.5570
26	1.7147	1.7059	1.6771	1.6468	1.6147	1.5805	1.5437
27	1.7040	1.6951	1.6662	1.6356	1.6032	1.5686	1.5313
28	1.6941	1.6852	1.6560	1.6252	1.5925	1.5575	1.5198
29	1.6849	1.6759	1.6465	1.6155	1.5825	1.5472	1.5090
30	1.6763	1.6673	1.6377	1.6065	1.5732	1.5376	1.4989
40	1.6146	1.6052	1.5741	1.5411	1.5056	1.4672	1.4248
60	1.5534	1.5435	1.5107	1.4755	1.4373	1.3952	1.3476
120	1.4926	1.4821	1.4472	1.4094	1.3676	1.3203	1.2646
∞	1.4318	1.4206	1.3832	1.3419	1.2951	1.2400	1.1686

ΠΙΝΑΚΑΣ 6. Κρίσιμες τιμές του κριτηρίου Wilcoxon (sign rank)

Μονόπλευρος ε.σ. α	Διμόπλευρος ε.σ. α	αριθμός των μη μηδενικών διαφορών n																
		5	6	7	8	9	10	11	12	13	14	15	16					
0.05	0.10	1	2	4	6	8	11	14	17	21	26	30	36					
0.25	0.05		1	2	4	6	8	11	14	17	21	25	30					
0.01	0.02			0	2	3	5	7	10	13	16	20	24					
0.005	0.01				0	2	3	5	7	10	13	16	19					
		17	18	19	20	21	22	23	24	25	26	27	28					
0.05	0.10	41	47	54	60	68	75	83	92	101	110	120	130					
0.25	0.05		35	40	46	52	59	66	73	81	90	98	107	117				
0.01	0.02		28	33	38	43	49	56	62	69	77	85	93	102				
0.005	0.01		23	28	32	37	43	49	55	61	68	76	84	92				

ΠΙΝΑΚΑΣ 7. Συνάρτηση Κατανομής Πιθανότητας για το Mann – Whitney στατιστικό U
 $(m = \max(n_1, n_2)$ και $n = \min(n_1, n_2)$)

m = 3

u	n		
	1	2	3
0	0.250	0.100	0.050
1	0.500	0.200	0.100
2	0.750	0.400	0.200
3	1.000	0.600	0.350
4		0.800	0.500
5		0.900	0.650
6		1.000	0.800
7			0.900
8			0.950
9			1.000

m = 4

u	n			
	1	2	3	4
0	0.200	0.067	0.029	0.014
1	0.400	0.133	0.057	0.029
2	0.600	0.267	0.114	0.057
3	0.800	0.400	0.200	0.100
4	1.000	0.600	0.314	0.171
5		0.733	0.429	0.243
6		0.867	0.571	0.343
7		0.933	0.686	0.443
8		1.000	0.800	0.557
9			0.886	0.657
10			0.943	0.757
11			0.971	0.829
12			1.000	0.900
13				0.943
14				0.971
15				0.986
16				1.000

ΠΙΝΑΚΑΣ 7 (Συνέχεια)

 $m = 5$

z	n				
	1	2	3	4	5
0	0.167	0.048	0.018	0.008	0.004
1	0.333	0.095	0.036	0.016	0.008
2	0.500	0.190	0.071	0.032	0.016
3	0.667	0.286	0.125	0.056	0.028
4	0.833	0.429	0.196	0.095	0.048
5	1.000	0.571	0.286	0.143	0.075
6		0.714	0.393	0.206	0.111
7		0.810	0.500	0.278	0.155
8		0.905	0.607	0.365	0.210
9		0.952	0.714	0.452	0.274
10		1.000	0.804	0.548	0.345
11			0.875	0.635	0.421
12			0.929	0.722	0.500
13			0.964	0.794	0.579
14			0.982	0.857	0.655
15			1.000	0.905	0.726
16				0.944	0.790
17				0.968	0.845
18				0.984	0.889
19				0.992	0.925
20				1.000	0.952
21					0.972
22					0.984
23					0.992
24					0.996
25					1.000

ΠΙΝΑΚΑΣ 7 (Συνέχεια)

m = 6

n

<i>n</i>	1	2	3	4	5	6
0	0.143	0.036	0.012	0.005	0.002	0.001
1	0.286	0.071	0.024	0.010	0.004	0.002
2	0.429	0.143	0.048	0.019	0.009	0.004
3	0.571	0.214	0.083	0.033	0.015	0.008
4	0.714	0.321	0.131	0.057	0.026	0.013
5	0.857	0.429	0.190	0.086	0.041	0.021
6	1.000	0.571	0.274	0.129	0.063	0.032
7		0.679	0.357	0.176	0.089	0.047
8		0.786	0.452	0.238	0.123	0.066
9		0.857	0.548	0.305	0.165	0.090
10		0.929	0.643	0.381	0.214	0.120
11		0.964	0.726	0.457	0.268	0.155
12		1.000	0.810	0.543	0.331	0.197
13			0.869	0.619	0.396	0.242
14			0.917	0.695	0.465	0.294
15			0.952	0.762	0.535	0.350
16			0.976	0.824	0.604	0.409
17			0.988	0.871	0.669	0.469
18			1.000	0.914	0.732	0.531
19				0.943	0.786	0.591
20				0.967	0.835	0.650
21				0.981	0.877	0.706
22				0.990	0.911	0.758
23				0.995	0.937	0.803
24				1.000	0.959	0.845
25					0.974	0.880
26					0.985	0.910
27					0.991	0.934
28					0.996	0.953
29					0.998	0.968
30					1.000	0.979
31						0.987
32						0.992
33						0.996
34						0.998
35						0.999
36						1.000

ΠΙΝΑΚΑΣ 7 (Συνέχεια)

$m = 7$

μ	n						
	1	2	3	4	5	6	7
0	0.125	0.028	0.008	0.003	0.001	0.001	0.000
1	0.250	0.056	0.017	0.006	0.003	0.001	0.001
2	0.375	0.111	0.033	0.012	0.005	0.002	0.001
3	0.500	0.167	0.058	0.021	0.009	0.004	0.002
4	0.625	0.250	0.092	0.036	0.015	0.007	0.003
5	0.750	0.333	0.133	0.055	0.024	0.011	0.006
6	0.875	0.444	0.192	0.082	0.037	0.017	0.009
7	1.000	0.556	0.258	0.115	0.053	0.026	0.013
8		0.667	0.333	0.158	0.074	0.037	0.019
9		0.750	0.417	0.206	0.101	0.051	0.027
10		0.833	0.500	0.264	0.134	0.069	0.036
11		0.889	0.583	0.324	0.172	0.090	0.049
12		0.944	0.667	0.394	0.216	0.117	0.064
13		0.972	0.742	0.464	0.265	0.147	0.082
14		1.000	0.808	0.536	0.319	0.183	0.104
15			0.867	0.606	0.378	0.223	0.130
16			0.908	0.676	0.438	0.267	0.159
17			0.942	0.736	0.500	0.314	0.191
18			0.967	0.794	0.562	0.365	0.228
19			0.983	0.842	0.622	0.418	0.267
20			0.992	0.885	0.681	0.473	0.310
21			1.000	0.918	0.735	0.527	0.355
22				0.945	0.784	0.582	0.402
23				0.964	0.828	0.635	0.451
24				0.979	0.866	0.686	0.500
25				0.988	0.899	0.733	0.549
26				0.994	0.926	0.777	0.598
27				0.997	0.947	0.817	0.645
28				1.000	0.963	0.853	0.690
29					0.976	0.883	0.733
30					0.985	0.910	0.772
31					0.991	0.931	0.809
32					0.995	0.949	0.841
33					0.997	0.963	0.870
34					0.999	0.974	0.896
35					1.000	0.983	0.918
36						0.989	0.936
37						0.993	0.951
38						0.996	0.964
39						0.998	0.973
40						0.999	0.981
41						0.999	0.987
42						1.000	0.991
43							0.994
44							0.997
45							0.998

ΠΙΝΑΚΑΣ 7 (Συνέχεια)

m = 8

ν	n							
	1	2	3	4	5	6	7	8
0	0.111	0.022	0.006	0.002	0.001	0.000	0.000	0.000
1	0.222	0.044	0.012	0.004	0.002	0.001	0.000	0.000
2	0.333	0.089	0.024	0.008	0.003	0.001	0.001	0.000
3	0.444	0.133	0.042	0.014	0.005	0.002	0.001	0.001
4	0.556	0.200	0.067	0.024	0.009	0.004	0.002	0.001
5	0.667	0.267	0.097	0.036	0.015	0.006	0.003	0.001
6	0.778	0.356	0.139	0.055	0.023	0.010	0.005	0.002
7	0.889	0.444	0.188	0.077	0.033	0.015	0.007	0.003
8	1.000	0.556	0.248	0.107	0.047	0.021	0.010	0.005
9		0.644	0.315	0.141	0.064	0.030	0.014	0.007
10		0.733	0.388	0.184	0.085	0.041	0.020	0.010
11		0.800	0.461	0.230	0.111	0.054	0.027	0.014
12		0.867	0.539	0.285	0.142	0.071	0.036	0.019
13		0.911	0.612	0.341	0.177	0.091	0.047	0.025
14		0.956	0.685	0.404	0.218	0.114	0.060	0.032
15		0.978	0.752	0.467	0.262	0.141	0.076	0.041
16		1.000	0.812	0.533	0.311	0.172	0.095	0.052
17			0.861	0.596	0.362	0.207	0.116	0.065
18			0.903	0.659	0.416	0.245	0.140	0.080
19			0.933	0.715	0.472	0.286	0.168	0.097
20			0.958	0.770	0.528	0.331	0.198	0.117
21			0.976	0.816	0.584	0.377	0.232	0.139
22			0.988	0.859	0.638	0.426	0.268	0.164
23			0.994	0.893	0.689	0.475	0.306	0.191
24			1.000	0.923	0.738	0.525	0.347	0.221
25				0.945	0.782	0.574	0.389	0.253
26				0.964	0.823	0.623	0.433	0.287
27				0.976	0.858	0.669	0.478	0.323
28				0.986	0.889	0.714	0.522	0.360
29				0.992	0.915	0.755	0.567	0.399
30				0.996	0.936	0.793	0.611	0.439
31				0.998	0.953	0.828	0.653	0.480
32				1.000	0.967	0.859	0.694	0.520
33					0.977	0.886	0.732	0.561
34					0.985	0.909	0.768	0.601
35					0.991	0.929	0.802	0.640
36					0.995	0.946	0.832	0.677
37					0.997	0.959	0.860	0.713
38					0.998	0.970	0.884	0.747
39					0.999	0.979	0.905	0.779
40					1.000	0.985	0.924	0.809
41						0.990	0.940	0.836
42						0.994	0.953	0.861
43						0.996	0.964	0.883
44						0.998	0.973	0.903
45						0.999	0.980	0.920

ΠΙΝΑΚΑΣ 7 (Συνέχεια)

m = 9

n

n	1	2	3	4	5	6	7	8	9
0	0.100	0.018	0.005	0.001	0.000	0.000	0.000	0.000	0.000
1	0.200	0.036	0.009	0.003	0.001	0.000	0.000	0.000	0.000
2	0.300	0.073	0.018	0.006	0.002	0.001	0.000	0.000	0.000
3	0.400	0.109	0.032	0.010	0.003	0.001	0.001	0.000	0.000
4	0.500	0.164	0.050	0.017	0.006	0.002	0.001	0.000	0.000
5	0.600	0.218	0.073	0.025	0.009	0.004	0.002	0.001	0.000
6	0.700	0.291	0.105	0.038	0.014	0.006	0.003	0.001	0.001
7	0.800	0.364	0.141	0.053	0.021	0.009	0.004	0.002	0.001
8	0.900	0.455	0.186	0.074	0.030	0.013	0.006	0.003	0.001
9	1.000	0.545	0.241	0.099	0.041	0.018	0.008	0.004	0.002
10		0.636	0.300	0.130	0.056	0.025	0.011	0.006	0.003
11		0.709	0.364	0.165	0.073	0.033	0.016	0.008	0.004
12		0.782	0.432	0.207	0.095	0.044	0.021	0.010	0.005
13		0.836	0.500	0.252	0.120	0.057	0.027	0.014	0.007
14		0.891	0.568	0.302	0.149	0.072	0.036	0.018	0.009
15		0.927	0.636	0.355	0.182	0.091	0.045	0.023	0.012
16		0.964	0.700	0.413	0.219	0.112	0.057	0.030	0.016
17		0.982	0.759	0.470	0.259	0.136	0.071	0.037	0.020
18		1.000	0.814	0.530	0.303	0.164	0.087	0.046	0.025
19			0.859	0.587	0.350	0.194	0.105	0.057	0.031
20			0.895	0.645	0.399	0.228	0.126	0.069	0.039
21			0.927	0.698	0.449	0.264	0.150	0.084	0.047
22			0.950	0.748	0.500	0.303	0.176	0.100	0.057
23			0.968	0.793	0.551	0.344	0.204	0.118	0.068
24			0.982	0.835	0.601	0.388	0.235	0.138	0.081
25			0.991	0.870	0.650	0.432	0.268	0.161	0.095
26			0.995	0.901	0.697	0.477	0.303	0.185	0.111
27			1.000	0.926	0.741	0.523	0.340	0.212	0.129
28				0.947	0.781	0.568	0.379	0.240	0.149
29				0.962	0.818	0.612	0.419	0.271	0.170
30				0.975	0.851	0.656	0.459	0.303	0.193
31				0.983	0.880	0.697	0.500	0.336	0.218
32				0.990	0.905	0.736	0.541	0.371	0.245
33				0.994	0.927	0.772	0.581	0.407	0.273
34				0.997	0.944	0.806	0.621	0.444	0.302
35				0.999	0.959	0.836	0.660	0.481	0.333
36				1.000	0.970	0.864	0.697	0.519	0.365
37					0.979	0.888	0.732	0.556	0.398
38					0.986	0.909	0.765	0.593	0.432
39					0.991	0.928	0.796	0.629	0.466
40					0.994	0.943	0.824	0.664	0.500
41					0.997	0.956	0.850	0.697	0.534
42					0.998	0.967	0.874	0.729	0.568
43					0.999	0.975	0.895	0.760	0.602
44					1.000	0.982	0.913	0.788	0.635
45					1.000	0.987	0.929	0.815	0.667

ΠΙΝΑΚΑΣ 7 (Συνέχεια)
m = 10

ν	n									
	1	2	3	4	5	6	7	8	9	10
0	0.091	0.015	0.003	0.001	0.000	0.000	0.000	0.000	0.000	0.000
1	0.182	0.030	0.007	0.002	0.001	0.000	0.000	0.000	0.000	0.000
2	0.273	0.061	0.014	0.004	0.001	0.000	0.000	0.000	0.000	0.000
3	0.364	0.091	0.024	0.007	0.002	0.001	0.000	0.000	0.000	0.000
4	0.455	0.136	0.038	0.012	0.004	0.001	0.001	0.000	0.000	0.000
5	0.545	0.182	0.056	0.018	0.006	0.002	0.001	0.000	0.000	0.000
6	0.636	0.242	0.080	0.027	0.010	0.004	0.002	0.001	0.000	0.000
7	0.727	0.303	0.108	0.038	0.014	0.005	0.002	0.001	0.000	0.000
8	0.818	0.379	0.143	0.053	0.020	0.008	0.003	0.002	0.001	0.000
9	0.909	0.455	0.185	0.071	0.028	0.011	0.005	0.002	0.001	0.001
10	1.000	0.545	0.234	0.094	0.038	0.016	0.007	0.003	0.001	0.001
11		0.621	0.287	0.120	0.050	0.021	0.009	0.004	0.002	0.001
12		0.697	0.346	0.152	0.065	0.028	0.012	0.006	0.003	0.001
13		0.758	0.406	0.187	0.082	0.036	0.017	0.008	0.004	0.002
14		0.818	0.469	0.227	0.103	0.047	0.022	0.010	0.005	0.003
15		0.864	0.531	0.270	0.127	0.059	0.028	0.013	0.007	0.003
16		0.909	0.594	0.318	0.155	0.074	0.035	0.017	0.009	0.004
17		0.939	0.654	0.367	0.185	0.090	0.044	0.022	0.011	0.006
18		0.970	0.713	0.420	0.220	0.110	0.054	0.027	0.014	0.007
19		0.985	0.766	0.473	0.257	0.132	0.067	0.034	0.017	0.009
20		1.000	0.815	0.527	0.297	0.157	0.081	0.042	0.022	0.012
21			0.857	0.580	0.339	0.184	0.097	0.051	0.027	0.014
22			0.892	0.633	0.384	0.214	0.115	0.061	0.033	0.018
23			0.920	0.682	0.430	0.246	0.135	0.073	0.039	0.022
24			0.944	0.730	0.477	0.281	0.157	0.086	0.047	0.026
25			0.962	0.773	0.523	0.318	0.182	0.102	0.056	0.032
26			0.976	0.813	0.570	0.356	0.209	0.118	0.067	0.038
27			0.986	0.848	0.616	0.396	0.237	0.137	0.078	0.045
28			0.993	0.880	0.661	0.437	0.268	0.158	0.091	0.053
29			0.997	0.906	0.703	0.479	0.300	0.180	0.106	0.062
30			1.000	0.929	0.743	0.521	0.335	0.204	0.121	0.072
31				0.947	0.780	0.563	0.370	0.230	0.139	0.083
32				0.962	0.815	0.604	0.406	0.257	0.158	0.095
33				0.973	0.845	0.644	0.443	0.286	0.178	0.109
34				0.982	0.873	0.682	0.481	0.317	0.200	0.124
35				0.988	0.897	0.719	0.519	0.348	0.223	0.140
36				0.993	0.918	0.754	0.557	0.381	0.248	0.157
37				0.996	0.935	0.786	0.594	0.414	0.274	0.176
38				0.998	0.950	0.816	0.630	0.448	0.302	0.197
39				0.999	0.962	0.843	0.665	0.483	0.330	0.218
40				1.000	0.972	0.868	0.700	0.517	0.360	0.241
41					0.980	0.890	0.732	0.552	0.390	0.264
42					0.986	0.910	0.763	0.586	0.421	0.289
43					0.990	0.926	0.791	0.619	0.452	0.315
44					0.994	0.941	0.818	0.652	0.484	0.342
45					0.996	0.953	0.843	0.683	0.516	0.370
46					0.998	0.964	0.865	0.714	0.548	0.398
47					0.999	0.972	0.885	0.743	0.579	0.427
48					0.999	0.979	0.903	0.770	0.610	0.456
49					1.000	0.984	0.919	0.796	0.640	0.485
50					1.000	0.989	0.933	0.820	0.670	0.515
51						0.992	0.946	0.842	0.698	0.544

ΠΙΝΑΚΑΣ 7 (Συνέχεια)

m = 11

n

u	1	2	3	4	5	6	7	8	9	10	11
0	0.083	0.013	0.003	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1	0.167	0.026	0.005	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2	0.250	0.051	0.011	0.003	0.001	0.000	0.000	0.000	0.000	0.000	0.000
3	0.333	0.077	0.019	0.005	0.002	0.001	0.000	0.000	0.000	0.000	0.000
4	0.417	0.115	0.030	0.009	0.003	0.001	0.000	0.000	0.000	0.000	0.000
5	0.500	0.154	0.044	0.013	0.004	0.002	0.001	0.000	0.000	0.000	0.000
6	0.583	0.205	0.063	0.020	0.007	0.002	0.001	0.000	0.000	0.000	0.000
7	0.667	0.256	0.085	0.028	0.010	0.004	0.001	0.001	0.000	0.000	0.000
8	0.750	0.321	0.113	0.039	0.014	0.005	0.002	0.001	0.000	0.000	0.000
9	0.833	0.385	0.146	0.052	0.019	0.007	0.003	0.001	0.001	0.000	0.000
10	0.917	0.462	0.184	0.069	0.026	0.010	0.004	0.002	0.001	0.000	0.000
11	1.000	0.538	0.228	0.089	0.034	0.014	0.006	0.002	0.001	0.001	0.000
12		0.615	0.277	0.113	0.045	0.018	0.008	0.003	0.002	0.001	0.000
13		0.679	0.330	0.140	0.057	0.024	0.010	0.005	0.002	0.001	0.001
14		0.744	0.385	0.171	0.073	0.031	0.013	0.006	0.003	0.001	0.001
15		0.795	0.442	0.206	0.090	0.039	0.017	0.008	0.004	0.002	0.001
16		0.846	0.500	0.245	0.111	0.049	0.022	0.010	0.005	0.002	0.001
17		0.885	0.558	0.286	0.134	0.061	0.028	0.013	0.006	0.003	0.002
18		0.923	0.615	0.330	0.160	0.074	0.035	0.016	0.008	0.004	0.002
19		0.949	0.670	0.377	0.189	0.090	0.043	0.020	0.010	0.005	0.003
20		0.974	0.723	0.426	0.220	0.108	0.052	0.025	0.013	0.006	0.003
21		0.987	0.772	0.475	0.255	0.128	0.063	0.031	0.016	0.008	0.004
22		1.000	0.816	0.525	0.292	0.151	0.075	0.038	0.019	0.010	0.005
23			0.854	0.574	0.331	0.175	0.090	0.045	0.023	0.012	0.006
24			0.887	0.623	0.371	0.202	0.105	0.054	0.028	0.015	0.008
25			0.915	0.670	0.413	0.231	0.123	0.064	0.034	0.018	0.010
26			0.937	0.714	0.457	0.262	0.143	0.076	0.040	0.021	0.012
27			0.956	0.755	0.500	0.295	0.164	0.089	0.048	0.026	0.014
28			0.970	0.794	0.543	0.330	0.187	0.103	0.056	0.031	0.017
29			0.981	0.829	0.587	0.366	0.213	0.119	0.065	0.036	0.020
30			0.989	0.860	0.629	0.404	0.239	0.136	0.076	0.042	0.024
31			0.995	0.887	0.669	0.442	0.268	0.155	0.088	0.049	0.028
32			0.997	0.911	0.708	0.481	0.298	0.176	0.101	0.057	0.033
33			1.000	0.931	0.745	0.519	0.329	0.198	0.115	0.066	0.038
34				0.948	0.780	0.558	0.362	0.221	0.130	0.076	0.044
35				0.961	0.811	0.596	0.396	0.246	0.147	0.087	0.051
36				0.972	0.840	0.634	0.430	0.272	0.166	0.099	0.058
37				0.980	0.866	0.670	0.465	0.300	0.185	0.112	0.066
38				0.987	0.889	0.705	0.500	0.329	0.206	0.126	0.076
39				0.991	0.910	0.738	0.535	0.358	0.228	0.141	0.086
40				0.995	0.927	0.769	0.570	0.389	0.251	0.157	0.097
41				0.997	0.943	0.798	0.604	0.420	0.276	0.175	0.108
42				0.999	0.955	0.825	0.638	0.452	0.301	0.193	0.121
43				0.999	0.966	0.849	0.671	0.484	0.328	0.213	0.135
44				1.000	0.974	0.872	0.702	0.516	0.355	0.234	0.150
45					0.981	0.892	0.732	0.548	0.383	0.256	0.166
46					0.986	0.910	0.761	0.580	0.412	0.279	0.183
47					0.990	0.926	0.787	0.611	0.441	0.302	0.200
48					0.993	0.939	0.813	0.642	0.470	0.327	0.219
49					0.996	0.951	0.836	0.671	0.500	0.352	0.239
50					0.997	0.961	0.857	0.700	0.530	0.378	0.260
51					0.998	0.969	0.877	0.728	0.559	0.405	0.281

ΠΙΝΑΚΑΣ 7 (Συνέχεια)

m = 12

μ	n											
	1	2	3	4	5	6	7	8	9	10	11	12
0	0.077	0.011	0.002	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1	0.154	0.022	0.004	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2	0.231	0.044	0.009	0.002	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.308	0.066	0.015	0.004	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4	0.385	0.099	0.024	0.007	0.002	0.001	0.000	0.000	0.000	0.000	0.000	0.000
5	0.462	0.132	0.035	0.010	0.003	0.001	0.000	0.000	0.000	0.000	0.000	0.000
6	0.538	0.176	0.051	0.015	0.005	0.002	0.001	0.000	0.000	0.000	0.000	0.000
7	0.615	0.220	0.068	0.021	0.007	0.002	0.001	0.000	0.000	0.000	0.000	0.000
8	0.692	0.275	0.090	0.029	0.010	0.003	0.001	0.001	0.000	0.000	0.000	0.000
9	0.769	0.330	0.116	0.039	0.013	0.005	0.002	0.001	0.000	0.000	0.000	0.000
10	0.846	0.396	0.147	0.052	0.018	0.007	0.003	0.001	0.000	0.000	0.000	0.000
11	0.923	0.462	0.182	0.066	0.024	0.009	0.004	0.001	0.001	0.000	0.000	0.000
12	1.000	0.538	0.224	0.085	0.032	0.012	0.005	0.002	0.001	0.000	0.000	0.000
13		0.604	0.268	0.106	0.041	0.016	0.006	0.003	0.001	0.001	0.000	0.000
14		0.670	0.316	0.131	0.052	0.021	0.009	0.004	0.002	0.001	0.000	0.000
15		0.725	0.367	0.158	0.065	0.026	0.011	0.005	0.002	0.001	0.000	0.000
16		0.780	0.420	0.190	0.080	0.033	0.014	0.006	0.003	0.001	0.001	0.000
17		0.824	0.473	0.223	0.097	0.042	0.018	0.008	0.004	0.002	0.001	0.000
18		0.868	0.527	0.260	0.117	0.051	0.022	0.010	0.005	0.002	0.001	0.001
19		0.901	0.580	0.299	0.139	0.062	0.028	0.013	0.006	0.003	0.001	0.001
20		0.934	0.633	0.342	0.164	0.075	0.034	0.016	0.007	0.004	0.002	0.001
21		0.956	0.684	0.385	0.191	0.090	0.042	0.019	0.009	0.004	0.002	0.001
22		0.978	0.732	0.431	0.221	0.106	0.050	0.024	0.011	0.006	0.003	0.001
23		0.989	0.776	0.476	0.253	0.125	0.060	0.029	0.014	0.007	0.003	0.002
24		1.000	0.818	0.524	0.287	0.145	0.071	0.035	0.017	0.008	0.004	0.002
25			0.853	0.569	0.323	0.168	0.084	0.041	0.020	0.010	0.005	0.003
26			0.884	0.615	0.361	0.192	0.098	0.049	0.025	0.012	0.006	0.003
27			0.910	0.658	0.399	0.219	0.113	0.058	0.029	0.015	0.008	0.004
28			0.932	0.701	0.439	0.247	0.131	0.067	0.035	0.018	0.009	0.005
29			0.949	0.740	0.480	0.277	0.150	0.078	0.041	0.021	0.011	0.006
30			0.965	0.777	0.520	0.308	0.170	0.091	0.048	0.025	0.013	0.007
31			0.976	0.810	0.561	0.341	0.192	0.104	0.056	0.030	0.016	0.009
32			0.985	0.842	0.601	0.375	0.216	0.119	0.064	0.035	0.019	0.010
33			0.991	0.869	0.639	0.410	0.241	0.135	0.074	0.040	0.022	0.012
34			0.996	0.894	0.677	0.446	0.268	0.153	0.085	0.047	0.026	0.014
35			0.998	0.915	0.713	0.482	0.296	0.172	0.097	0.054	0.030	0.017
36			1.000	0.934	0.747	0.518	0.325	0.192	0.109	0.061	0.034	0.019
37				0.948	0.779	0.554	0.355	0.213	0.123	0.070	0.040	0.022
38				0.961	0.809	0.590	0.387	0.236	0.139	0.080	0.045	0.026
39				0.971	0.836	0.625	0.418	0.260	0.155	0.090	0.052	0.030
40				0.979	0.861	0.659	0.451	0.286	0.173	0.101	0.059	0.034
41				0.985	0.883	0.692	0.484	0.312	0.191	0.114	0.067	0.039
42				0.990	0.903	0.723	0.516	0.339	0.211	0.127	0.075	0.044
43				0.993	0.920	0.753	0.549	0.367	0.232	0.141	0.085	0.050
44				0.996	0.935	0.781	0.582	0.396	0.254	0.157	0.095	0.057
45				0.998	0.948	0.808	0.613	0.425	0.277	0.173	0.106	0.064
46				0.999	0.959	0.832	0.645	0.455	0.301	0.190	0.118	0.072
47				0.999	0.968	0.855	0.675	0.485	0.326	0.209	0.130	0.080
48				1.000	0.976	0.875	0.704	0.515	0.351	0.228	0.144	0.089
49					0.982	0.894	0.732	0.545	0.377	0.248	0.158	0.099
50					0.987	0.910	0.759	0.575	0.404	0.269	0.173	0.109
51					0.990	0.925	0.784	0.604	0.431	0.291	0.190	0.121

ΠΙΝΑΚΑΣ 8. Κρίσιμες τιμές του κριτηρίου Kruskal – Wallis για $k = 3$ ανεξάρτητα δείγματα με μεγέθη το πολύ 5.

			$k = 3$	
Μεγέθη Δειγμάτων			$\alpha = 0.05$	$\alpha = 0.01$
2	2	2	-	-
3	2	1	-	-
3	2	2	4.714	-
3	3	1	5.143	-
3	3	2	5.361	-
3	3	3	5.600	7.200
4	2	1	-	-
4	2	2	5.333	-
4	3	1	5.208	-
4	3	2	5.444	6.444
4	3	3	5.791	6.745
4	4	1	4.967	6.667
4	4	2	5.455	7.036
4	4	3	5.598	7.144
4	4	4	5.692	7.654
5	2	1	5.000	-
5	2	2	5.160	6.533
5	3	1	4.960	-
5	3	2	5.251	6.909
5	3	3	5.648	7.079
5	4	1	4.985	6.955
5	4	2	5.273	7.205
5	4	3	5.656	7.445
5	4	4	5.657	7.760
5	5	1	5.127	7.309
5	5	2	5.338	7.338
5	5	3	5.705	7.578
5	5	4	5.666	7.823
5	5	5	5.780	8.000

ΠΙΝΑΚΑΣ 9. Κρίσιμες τιμές του κριτηρίου Kolmogorov – Smirnov

n	$\alpha = .20$	$\alpha = .10$	$\alpha = .05$	$\alpha = .02$	$\alpha = .01$	n	$\alpha = .20$	$\alpha = .10$	$\alpha = .05$	$\alpha = .02$	$\alpha = .01$
1	.900	.950	.975	.990	.995	21	.226	.259	.287	.321	.344
2	.684	.776	.842	.900	.929	22	.221	.253	.281	.314	.337
3	.565	.636	.708	.785	.829	23	.216	.247	.275	.307	.330
4	.493	.565	.624	.689	.734	24	.212	.242	.269	.301	.323
5	.447	.509	.563	.627	.669	25	.208	.238	.264	.295	.317
6	.410	.468	.519	.577	.617	26	.204	.233	.259	.290	.311
7	.381	.436	.483	.538	.576	27	.200	.229	.254	.284	.305
8	.358	.410	.454	.507	.542	28	.197	.225	.250	.279	.300
9	.339	.387	.430	.480	.513	29	.193	.221	.246	.275	.295
10	.323	.369	.409	.457	.489	30	.190	.218	.242	.270	.290
11	.308	.352	.391	.437	.468	31	.187	.214	.238	.266	.285
12	.296	.338	.375	.419	.449	32	.184	.211	.234	.262	.281
13	.285	.325	.361	.404	.432	33	.182	.208	.231	.258	.277
14	.275	.314	.349	.390	.418	34	.179	.205	.227	.254	.273
15	.266	.304	.338	.377	.404	35	.177	.202	.224	.251	.269
16	.258	.295	.327	.366	.392	36	.174	.199	.221	.247	.265
17	.250	.286	.318	.355	.381	37	.172	.196	.218	.244	.262
18	.244	.279	.309	.346	.371	38	.170	.194	.215	.241	.258
19	.237	.271	.301	.337	.361	39	.168	.191	.213	.238	.255
20	.232	.265	.294	.329	.352	40	.165	.189	.210	.235	.252
						> 40	$\frac{1.07}{\sqrt{n}}$	$\frac{1.22}{\sqrt{n}}$	$\frac{1.36}{\sqrt{n}}$	$\frac{1.52}{\sqrt{n}}$	$\frac{1.63}{\sqrt{n}}$

ΕΛΕΓΧΟΙ ΣΤΑΤΙΣΤΙΚΩΝ ΥΠΟΘΕΣΕΩΝ

Ι. ΕΛΕΓΧΟΙ ΜΕΣΟΥ

		ΣΤΑΤΙΣΤΙΚΗ ΣΥΝΑΡΤΗΣΗ	ΚΑΤΑΝΟΜΗ ΣΤΑΤΙΣΤΙΚΩΝ ΣΥΝΑΡΤΗΣΕΩΝ	ΣΤΑΤΙΣΤΙΚΟ ΤΕΣΤ	ΚΡΙΣΙΜΗ ΠΕΡΙΟΧΗ				
Αγνωστη Διασπορά Μεγάλο Δείγμα ($n \geq 30$)	A	$H_0: \mu = \mu_0$ $H_1: \mu \neq \mu_0$	$N(0,1)$	$Z = \frac{\bar{X} - \mu_0}{\sigma/\sqrt{n}}$	$ Z > z_{\alpha/2}$				
	B	$H_0: \mu \leq \mu_0$ $H_1: \mu > \mu_0$			$Z > z_\alpha$				
	C	$H_0: \mu \geq \mu_0$ $H_1: \mu < \mu_0$			$Z < -z_\alpha$				
	A	$H_0: \mu = \mu_0$ $H_1: \mu \neq \mu_0$			όπως παραπάνω με $S^2 = \frac{1}{n-1} \sum (X_i - \bar{X})^2$ αντί του σ^2				
	B	$H_0: \mu \leq \mu_0$ $H_1: \mu > \mu_0$							
	C	$H_0: \mu \geq \mu_0$ $H_1: \mu < \mu_0$							
	A	$H_0: \mu = \mu_0$ $H_1: \mu \neq \mu_0$					$t = \frac{\bar{X} - \mu}{S/\sqrt{n}}$	$ t > t_{n-1, \frac{\alpha}{2}}$	
	B	$H_0: \mu \leq \mu_0$ $H_1: \mu > \mu_0$							$t > t_{n-1, \alpha}$
	C	$H_0: \mu \geq \mu_0$ $H_1: \mu < \mu_0$							

Π. ΕΛΕΓΧΟΙ ΔΙΑΦΟΡΑΣ ΜΕΣΩΝ

Α) ΑΝΕΞΑΡΤΗΤΑ ΔΕΙΓΜΑΤΑ

			ΣΤΑΤΙΣΤΙΚΗ ΣΥΝΑΡΤΗΣΗ	ΚΑΤΑΝΟΜΗ ΣΤΑΤΙΣΤΙΚΩΝ ΣΥΝΑΡΤΗΣΕΩΝ	ΣΤΑΤΙΣΤΙΚΟ ΤΕΣΤ	ΚΡΙΣΙΜΗ ΠΕΡΙΟΧΗ
Γνωστές Διασπορές	A	$H_0: \mu_1 - \mu_2 = \mu_0$ $H_1: \mu_1 - \mu_2 \neq \mu_0$	$Z = \frac{(\bar{x}_1 - \bar{x}_2) - (\mu_1 - \mu_2)}{\sqrt{\frac{\sigma_1^2}{n_1} + \frac{\sigma_2^2}{n_2}}}$	$N(0,1)$	$Z = \frac{(\bar{x}_1 - \bar{x}_2) - \mu_0}{\sqrt{\frac{\sigma_1^2}{n_1} + \frac{\sigma_2^2}{n_2}}}$	$ Z > z_{\alpha/2}$
	B	$H_0: \mu_1 - \mu_2 \leq \mu_0$ $H_1: \mu_1 - \mu_2 > \mu_0$				$Z > z_\alpha$
	C	$H_0: \mu_1 - \mu_2 \geq \mu_0$ $H_1: \mu_1 - \mu_2 < \mu_0$				$Z < -z_\alpha$
Άγνωστες Διασπορές Μεγάλα Δείγματα	A	$H_0: \mu_1 - \mu_2 = \mu_0$ $H_1: \mu_1 - \mu_2 \neq \mu_0$	όπως παραπάνω με S_1^2 και S_2^2 στη θέση των σ_1^2 και σ_2^2			
	B	$H_0: \mu_1 - \mu_2 \leq \mu_0$ $H_1: \mu_1 - \mu_2 > \mu_0$				
	C	$H_0: \mu_1 - \mu_2 \geq \mu_0$ $H_1: \mu_1 - \mu_2 < \mu_0$				
Άγνωστες Διασπορές Μικρά Δείγματα	A	$H_0: \mu_1 - \mu_2 = \mu_0$ $H_1: \mu_1 - \mu_2 \neq \mu_0$	$t' = \frac{(\bar{x}_1 - \bar{x}_2) - (\mu_1 - \mu_2)}{\sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}}}$	$Sf(v)$ με β.ε. $v = \frac{\left(\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}\right)^2}{\left(\frac{S_1^2}{n_1}\right)^2 + \left(\frac{S_2^2}{n_2}\right)^2}$ $n_1 - 1 \quad n_2 - 1$	$t' = \frac{(\bar{x}_1 - \bar{x}_2) - \mu_0}{\sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}}}$	$ t' > t_{\frac{\alpha}{2}, v}$
	B	$H_0: \mu_1 - \mu_2 \leq \mu_0$ $H_1: \mu_1 - \mu_2 > \mu_0$				$t' > t_{\alpha, v}$
	C	$H_0: \mu_1 - \mu_2 \geq \mu_0$ $H_1: \mu_1 - \mu_2 < \mu_0$				$t' < -t_{\alpha, v}$
Άγνωστες Διασπορές Μικρά Δείγματα $\sigma_1 = \sigma_2$	A	$H_0: \mu_1 - \mu_2 = \mu_0$ $H_1: \mu_1 - \mu_2 \neq \mu_0$	$t' = \frac{(\bar{x}_1 - \bar{x}_2) - (\mu_1 - \mu_2)}{S_p \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$ με $S_p^2 = \frac{(n_1 - 1)S_1^2 + (n_2 - 1)S_2^2}{n_1 + n_2 - 2}$	$Sf(v)$ με β.ε. $v = n_1 + n_2 - 2$	$t' = \frac{(\bar{x}_1 - \bar{x}_2) - \mu_0}{S_p \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$	$ t' > t_{\frac{\alpha}{2}, v}$
	B	$H_0: \mu_1 - \mu_2 \leq \mu_0$ $H_1: \mu_1 - \mu_2 > \mu_0$				$t' > t_{\alpha, v}$
	C	$H_0: \mu_1 - \mu_2 \geq \mu_0$ $H_1: \mu_1 - \mu_2 < \mu_0$				$t' < -t_{\alpha, v}$

Β) ΕΞΑΡΤΗΜΕΝΑ ΔΕΙΓΜΑΤΑ (ΖΕΥΓΗ ΠΑΡΑΤΗΡΗΣΕΩΝ)

ΖΕΥΓΗ ΠΑΡΑΤΗΡΗΣΕΩΝ	A	$H_0: \mu_1 - \mu_2 = \mu_0$ $H_1: \mu_1 - \mu_2 \neq \mu_0$	$t_D = \frac{(\bar{x}_1 - \bar{x}_2) - (\mu_1 - \mu_2)}{S_D / \sqrt{n}}$ με $S_D^2 = \frac{1}{n-1} \sum (D_i - \bar{D})^2$ και $D_i = X_i - Y_i$	$Sf(n-1)$	$t_D = \frac{\bar{D} - \mu_D}{S_D / \sqrt{n}}$	$ t_D > t_{\frac{\alpha}{2}, n-1}$
	B	$H_0: \mu_1 - \mu_2 \leq \mu_0$ $H_1: \mu_1 - \mu_2 > \mu_0$				$t_D > t_{\alpha, n-1}$
	C	$H_0: \mu_1 - \mu_2 \geq \mu_0$ $H_1: \mu_1 - \mu_2 < \mu_0$				$t_D < -t_{\alpha, n-1}$

III. ΕΛΕΓΧΟΙ ΔΙΑΣΠΟΡΩΝ

		ΣΤΑΤΙΣΤΙΚΗ ΣΥΝΑΡΤΗΣΗ	ΚΑΤΑΝΟΜΗ ΣΤΑΤ. ΣΥΝΑΡΤ.	ΣΤΑΤΙΣΤΙΚΟ ΤΕΣΤ	ΚΡΙΣΙΜΗ ΠΕΡΙΟΧΗ
ΕΝΑΣ ΠΑΡΗΘΥΣΜΟΣ	A	$H_0 : \sigma = \sigma_0$ $H_1 : \sigma \neq \sigma_0$	$\chi^2 = \frac{(n-1)S^2}{\sigma_0^2}$	$\chi^2 = \frac{(n-1)S^2}{\sigma_0^2}$	$\chi^2 < \chi_{n-1, 1-\frac{\alpha}{2}}$
	B	$H_0 : \sigma \leq \sigma_0$ $H_1 : \sigma > \sigma_0$			ή $\chi^2 > \chi_{n-1, \frac{\alpha}{2}}$
	C	$H_0 : \sigma \geq \sigma_0$ $H_1 : \sigma < \sigma_0$			$\chi^2 > \chi_{n-1, \alpha}$
ΔΥΟ ΑΝΕΞ. ΠΑΡΗΘΥΣΜΟΙ	A	$H_0 : \sigma_2 = \sigma_2$ $H_1 : \sigma_2 \neq \sigma_2$	$F(n_1-1, n_2-1)$	$F = \frac{S_1^2}{S_2^2}$	$F > F_{n_1-1, n_2-1, \frac{\alpha}{2}}$
		$H_0 : \sigma_1 \leq \sigma_2$ $H_1 : \sigma_1 > \sigma_2$			ή $F < F_{n_1-1, n_2-1, 1-\frac{\alpha}{2}}$
	B	$H_0 : \sigma_1 \leq \sigma_2$ $H_1 : \sigma_1 > \sigma_2$			$F > F_{n_1-1, n_2-1, \alpha}$
		$H_0 : \sigma_1 \geq \sigma_2$ $H_1 : \sigma_1 < \sigma_2$			$F < F_{n_1-1, n_2-1, 1-\alpha}$

IV. ΕΛΕΓΧΟΙ ΠΟΣΟΣΤΩΝ

		ΣΤΑΤΙΣΤΙΚΗ ΣΥΝΑΡΤΗΣΗ	ΚΑΤΑΝΟΜΗ ΣΤΑΤ. ΣΥΝΑΡΤ.	ΣΤΑΤΙΣΤΙΚΟ ΤΕΣΤ	ΚΡΙΣΙΜΗ ΠΕΡΙΟΧΗ
ΕΝΑΣ ΠΑΡΕΛΤΟΜΟΣ	A	$H_0 : p = p_0$ $H_1 : p \neq p_0$	$N(0,1)$	$Z = \frac{\hat{p} - p_0}{\sqrt{\frac{p_0(1-p_0)}{n}}}$ με $\hat{p} = \frac{x}{n}$	$ Z > z_{\alpha/2}$
	B	$H_0 : p \leq p_0$ $H_1 : p > p_0$			$Z > z_\alpha$
	C	$H_0 : p \geq p_0$ $H_1 : p < p_0$			$Z < -z_\alpha$
ΔΥΟ ΑΝΕΞΑ ΡΤΟΙ ΠΑΡΕΛΤΟΜΟΙ	A	$H_0 : p_1 = p_2$ $H_1 : p_1 \neq p_2$	$N(0,1)$	$Z = \frac{\hat{p}_1 - \hat{p}_2}{\sqrt{\bar{p}(1-\bar{p})\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$ με $\bar{p} = \frac{x_1 + x_2}{n_1 + n_2}$	$ Z > z_{\alpha/2}$
	B	$H_0 : p_1 \leq p_2$ $H_1 : p_1 > p_2$			$Z > z_\alpha$
	C	$H_0 : p_1 \geq p_2$ $H_1 : p_1 < p_2$			$Z < -z_\alpha$