





2. Taula:  $\mathcal{P}(\lambda)$  banaketa.  $P(X = k) = e^{-\lambda} \frac{\lambda^k}{k!}$

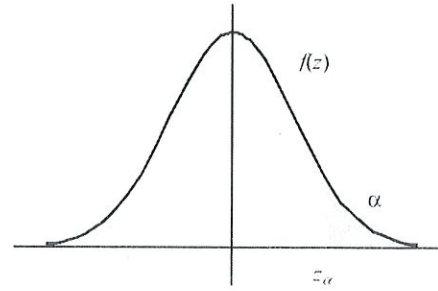
$\lambda$	$k$	0	1	2	3	4	5	6	7	8	9	10	11	12
0.1		0.9048	0.0905	0.0045	0.0002									
0.2		0.8187	0.1637	0.0164	0.0011	0.0001								
0.3		0.7408	0.2222	0.0333	0.0033	0.0003								
0.4		0.6703	0.2681	0.0536	0.0072	0.0007	0.0001							
0.5		0.6065	0.3033	0.0758	0.0126	0.0016	0.0002							
0.6		0.5488	0.3293	0.0988	0.0198	0.0030	0.0004							
0.7		0.4966	0.3476	0.1217	0.0284	0.0050	0.0007	0.0001						
0.8		0.4493	0.3595	0.1438	0.0383	0.0077	0.0012	0.0002						
0.9		0.4066	0.3659	0.1647	0.0494	0.0111	0.0020	0.0003						
1.0		0.3679	0.3679	0.1839	0.0613	0.0153	0.0031	0.0005	0.0001					
1.1		0.3329	0.3662	0.2014	0.0738	0.0203	0.0045	0.0008	0.0001					
1.2		0.3012	0.3614	0.2169	0.0867	0.0260	0.0062	0.0012	0.0002					
1.3		0.2725	0.3543	0.2303	0.0998	0.0324	0.0084	0.0018	0.0003	0.0001				
1.4		0.2466	0.3452	0.2417	0.1128	0.0395	0.0111	0.0026	0.0005	0.0001				
1.5		0.2231	0.3347	0.2510	0.1255	0.0471	0.0141	0.0035	0.0008	0.0001				
1.6		0.2019	0.3230	0.2584	0.1378	0.0551	0.0176	0.0047	0.0011	0.0002				
1.7		0.1827	0.3106	0.2640	0.1496	0.0636	0.0216	0.0061	0.0015	0.0003	0.0001			
1.8		0.1653	0.2975	0.2678	0.1607	0.0723	0.0260	0.0078	0.0020	0.0005	0.0001			
1.9		0.1496	0.2842	0.2700	0.1710	0.0812	0.0309	0.0098	0.0027	0.0006	0.0001			
2.0		0.1353	0.2707	0.2707	0.1804	0.0902	0.0361	0.0120	0.0034	0.0009	0.0002			
2.2		0.1108	0.2438	0.2681	0.1966	0.1082	0.0476	0.0174	0.0055	0.0015	0.0004	0.0001		
2.4		0.0907	0.2177	0.2613	0.2090	0.1254	0.0602	0.0241	0.0083	0.0025	0.0007	0.0002		
2.6		0.0743	0.1931	0.2510	0.2176	0.1414	0.0735	0.0319	0.0118	0.0038	0.0011	0.0003	0.0001	
2.8		0.0608	0.1703	0.2384	0.2225	0.1557	0.0872	0.0407	0.0163	0.0057	0.0018	0.0005	0.0001	
3.0		0.0498	0.1494	0.2240	0.2240	0.1680	0.1008	0.0504	0.0216	0.0081	0.0027	0.0008	0.0002	0.0001
3.2		0.0408	0.1304	0.2087	0.2226	0.1781	0.1140	0.0608	0.0278	0.0111	0.0040	0.0013	0.0004	0.0001
3.4		0.0334	0.1135	0.1929	0.2186	0.1858	0.1264	0.0716	0.0348	0.0148	0.0056	0.0019	0.0006	0.0002
3.6		0.0273	0.0984	0.1771	0.2125	0.1912	0.1377	0.0826	0.0425	0.0191	0.0076	0.0028	0.0009	0.0003
3.8		0.0224	0.0850	0.1615	0.2046	0.1944	0.1477	0.0936	0.0508	0.0241	0.0102	0.0039	0.0013	0.0004
4.0		0.0183	0.0733	0.1465	0.1954	0.1954	0.1563	0.1042	0.0595	0.0298	0.0132	0.0053	0.0019	0.0006
5.0		0.0067	0.0337	0.0842	0.1404	0.1755	0.1755	0.1462	0.1044	0.0653	0.0363	0.0181	0.0082	0.0034
6.0		0.0025	0.0149	0.0446	0.0892	0.1339	0.1606	0.1606	0.1377	0.1033	0.0688	0.0413	0.0225	0.0113
7.0		0.0009	0.0064	0.0223	0.0521	0.0912	0.1277	0.1490	0.1490	0.1304	0.1014	0.0710	0.0452	0.0263
8.0		0.0003	0.0027	0.0107	0.0286	0.0573	0.0916	0.1221	0.1396	0.1396	0.1241	0.0993	0.0722	0.0481
9.0		0.0001	0.0011	0.0050	0.0150	0.0337	0.0607	0.0911	0.1171	0.1318	0.1318	0.1186	0.0970	0.0728
10.0		0.0000	0.0005	0.0023	0.0076	0.0189	0.0378	0.0631	0.0901	0.1126	0.1251	0.1251	0.1137	0.0948

$\lambda$	$k$	13	14	15	16	17	18	19	20	21	22	23	24
3.6		0.0001											
3.8		0.0001											
4.0		0.0002	0.0001										
5.0		0.0013	0.0005	0.0002									
6.0		0.0052	0.0022	0.0009	0.0003	0.0001							
7.0		0.0142	0.0071	0.0033	0.0014	0.0006	0.0002	0.0001					
8.0		0.0296	0.0169	0.0090	0.0045	0.0021	0.0009	0.0004	0.0002	0.0001			
9.0		0.0504	0.0324	0.0194	0.0109	0.0058	0.0029	0.0014	0.0006	0.0003	0.0001		
10.0		0.0729	0.0521	0.0347	0.0217	0.0128	0.0071	0.0037	0.0019	0.0009	0.0004	0.0002	0.0001



3. Taula: Z: N(0,1) banaketa.

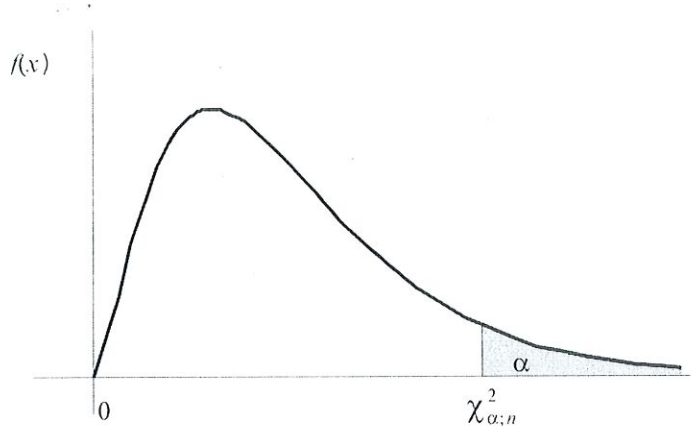
$$\int_{z_\alpha}^{+\infty} \frac{1}{\sqrt{2\pi}} e^{-z^2/2} dz$$



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



4. Taula:  $\chi_n^2$  banaketa.



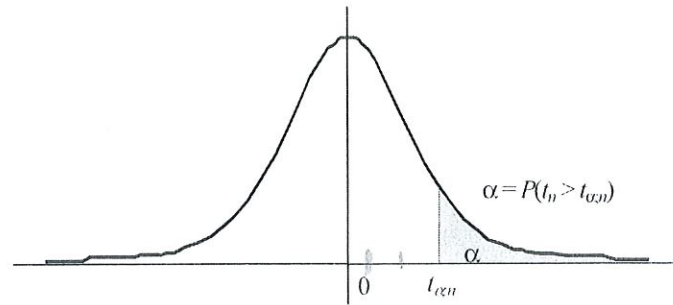
$\alpha$	0.995	0.99	0.98	0.975	0.95	0.90	0.10	0.05	0.025	0.02	0.01
$n$											
1	0.000	0.000	0.001	0.001	0.004	0.016	2.706	3.841	5.024	5.412	6.635
2	0.010	0.020	0.040	0.051	0.103	0.211	4.605	5.991	7.378	7.824	9.210
3	0.072	0.115	0.185	0.216	0.352	0.584	6.251	7.815	9.348	9.837	11.345
4	0.207	0.297	0.429	0.484	0.711	1.064	7.779	9.488	11.143	11.668	13.277
5	0.412	0.554	0.752	0.831	1.145	1.610	9.236	11.070	12.832	13.388	15.086
6	0.676	0.872	1.134	1.237	1.635	2.204	10.645	12.592	14.449	15.033	16.812
7	0.989	1.239	1.564	1.690	2.167	2.833	12.017	14.067	16.013	16.622	18.475
8	1.344	1.647	2.032	2.180	2.733	3.490	13.362	15.507	17.535	18.168	20.090
9	1.735	2.088	2.532	2.700	3.325	4.168	14.684	16.919	19.023	19.679	21.666
10	2.156	2.558	3.059	3.247	3.940	4.865	15.987	18.307	20.483	21.161	23.209
11	2.603	3.053	3.609	3.816	4.575	5.578	17.275	19.675	21.920	22.618	24.725
12	3.074	3.571	4.178	4.404	5.226	6.304	18.549	21.026	23.337	24.054	26.217
13	3.565	4.107	4.765	5.009	5.892	7.041	19.812	22.362	24.736	25.471	27.688
14	4.075	4.660	5.368	5.629	6.571	7.790	21.064	23.685	26.119	26.873	29.141
15	4.601	5.229	5.985	6.262	7.261	8.547	22.307	24.996	27.488	28.259	30.578
16	5.142	5.812	6.614	6.908	7.962	9.312	23.542	26.296	28.845	29.633	32.000
17	5.697	6.408	7.255	7.564	8.672	10.085	24.769	27.587	30.191	30.995	33.409
18	6.265	7.015	7.906	8.231	9.390	10.865	25.989	28.869	31.526	32.346	34.805
19	6.844	7.633	8.567	8.907	10.117	11.651	27.204	30.144	32.852	33.687	36.191
20	7.434	8.260	9.237	9.591	10.851	12.443	28.412	31.410	34.170	35.020	37.566
21	8.034	8.897	9.915	10.283	11.591	13.240	29.615	32.671	35.479	36.343	38.932
22	8.643	9.542	10.600	10.982	12.338	14.041	30.813	33.924	36.781	37.659	40.289
23	9.260	10.196	11.293	11.689	13.091	14.848	32.007	35.172	38.076	38.968	41.638
24	9.886	10.856	11.992	12.401	13.848	15.659	33.196	36.415	39.364	40.270	42.980
25	10.520	11.524	12.697	13.120	14.611	16.473	34.382	37.652	40.646	41.566	44.314
26	11.160	12.198	13.409	13.844	15.379	17.292	35.563	38.885	41.923	42.856	45.642
27	11.808	12.878	14.125	14.573	16.151	18.114	36.741	40.113	43.195	44.140	46.963
28	12.461	13.565	14.847	15.308	16.928	18.939	37.916	41.337	44.461	45.419	48.278
29	13.121	14.256	15.574	16.047	17.708	19.768	39.087	42.557	45.722	46.693	49.588
30	13.787	14.953	16.306	16.791	18.493	20.599	40.256	43.773	46.979	47.962	50.892

$$n > 30 \Rightarrow \chi_{\alpha,n}^2 = \frac{1}{2} \left( z_{\alpha} + \sqrt{2n-1} \right)^2$$





5. Taula:  $t_n$  banaketa.



$\alpha$	0.40	0.3	0.2	0.1	0.05	0.025	0.01	0.005	0.001	0.0005
$n$										
1	0.325	0.727	1.376	3.078	6.314	12.706	31.821	63.656	318.289	636.578
2	0.289	0.617	1.061	1.886	2.920	4.303	6.965	9.925	22.328	31.600
3	0.277	0.584	0.978	1.638	2.353	3.182	4.541	5.841	10.214	12.924
4	0.271	0.569	0.941	1.533	2.132	2.776	3.747	4.604	7.173	8.610
5	0.267	0.559	0.920	1.476	2.015	2.571	3.365	4.032	5.894	6.869
6	0.265	0.553	0.906	1.440	1.943	2.447	3.143	3.707	5.208	5.959
7	0.263	0.549	0.896	1.415	1.895	2.365	2.998	3.499	4.785	5.408
8	0.262	0.546	0.889	1.397	1.860	2.306	2.896	3.355	4.501	5.041
9	0.261	0.543	0.883	1.383	1.833	2.262	2.821	3.250	4.297	4.781
10	0.260	0.542	0.879	1.372	1.812	2.228	2.764	3.169	4.144	4.587
11	0.260	0.540	0.876	1.363	1.796	2.201	2.718	3.106	4.025	4.437
12	0.259	0.539	0.873	1.356	1.782	2.179	2.681	3.055	3.930	4.318
13	0.259	0.538	0.870	1.350	1.771	2.160	2.650	3.012	3.852	4.221
14	0.258	0.537	0.868	1.345	1.761	2.145	2.624	2.977	3.787	4.140
15	0.258	0.536	0.866	1.341	1.753	2.131	2.602	2.947	3.733	4.073
16	0.258	0.535	0.865	1.337	1.746	2.120	2.583	2.921	3.686	4.015
17	0.257	0.534	0.863	1.333	1.740	2.110	2.567	2.898	3.646	3.965
18	0.257	0.534	0.862	1.330	1.734	2.101	2.552	2.878	3.610	3.922
19	0.257	0.533	0.861	1.328	1.729	2.093	2.539	2.861	3.579	3.883
20	0.257	0.533	0.860	1.325	1.725	2.086	2.528	2.845	3.552	3.850
21	0.257	0.532	0.859	1.323	1.721	2.080	2.518	2.831	3.527	3.819
22	0.256	0.532	0.858	1.321	1.717	2.074	2.508	2.819	3.505	3.792
23	0.256	0.532	0.858	1.319	1.714	2.069	2.500	2.807	3.485	3.768
24	0.256	0.531	0.857	1.318	1.711	2.064	2.492	2.797	3.467	3.745
25	0.256	0.531	0.856	1.316	1.708	2.060	2.485	2.787	3.450	3.725
26	0.256	0.531	0.856	1.315	1.706	2.056	2.479	2.779	3.435	3.707
27	0.256	0.531	0.855	1.314	1.703	2.052	2.473	2.771	3.421	3.689
28	0.256	0.530	0.855	1.313	1.701	2.048	2.467	2.763	3.408	3.674
29	0.256	0.530	0.854	1.311	1.699	2.045	2.462	2.756	3.396	3.660
30	0.256	0.530	0.854	1.310	1.697	2.042	2.457	2.750	3.385	3.646
40	0.255	0.529	0.851	1.303	1.684	2.021	2.423	2.704	3.307	3.551
50	0.255	0.528	0.849	1.299	1.676	2.009	2.403	2.678	3.261	3.496
60	0.254	0.527	0.848	1.296	1.671	2.000	2.390	2.660	3.232	3.460
80	0.254	0.526	0.846	1.292	1.664	1.990	2.374	2.639	3.195	3.416
100	0.254	0.526	0.845	1.290	1.660	1.984	2.364	2.626	3.174	3.390
200	0.254	0.525	0.843	1.286	1.653	1.972	2.345	2.601	3.131	3.340
500	0.253	0.525	0.842	1.283	1.648	1.965	2.334	2.586	3.107	3.310
$\infty$	0.253	0.524	0.842	1.282	1.645	1.960	2.327	2.576	3.091	3.291



6. Taula:  $F_{n_1, n_2}$  banaketa.

$n_1$		1	2	3	4	5	6	7	8	9	10
$n_2$	$\alpha$										
1	0.005	16213	19997	21614	22501	23056	23440	23715	23924	24092	24222
1	0.010	4052.2	4999.3	5403.5	5624.3	5764.0	5859.0	5928.3	5981.0	6022.4	6055.9
1	0.025	647.79	799.48	864.15	899.60	921.83	937.11	948.20	956.64	963.28	968.63
1	0.050	161.45	199.50	215.71	224.58	230.16	233.99	236.77	238.88	240.54	241.88
1	0.100	39.864	49.500	53.593	55.833	57.240	58.204	58.906	59.439	59.857	60.195
2	0.005	198.50	199.01	199.16	199.24	199.30	199.33	199.36	199.38	199.39	199.39
2	0.010	98.502	99.000	99.164	99.251	99.302	99.331	99.357	99.375	99.390	99.397
2	0.025	38.506	39.000	39.166	39.248	39.298	39.331	39.356	39.373	39.387	39.398
2	0.050	18.513	19.000	19.164	19.247	19.296	19.329	19.353	19.371	19.385	19.396
2	0.100	8.526	9.000	9.162	9.243	9.293	9.326	9.349	9.367	9.381	9.392
3	0.005	55.552	49.800	47.468	46.195	45.391	44.838	44.434	44.125	43.881	43.685
3	0.010	34.116	30.816	29.457	28.710	28.237	27.911	27.671	27.489	27.345	27.228
3	0.025	17.443	16.044	15.439	15.101	14.885	14.735	14.624	14.540	14.473	14.419
3	0.050	10.128	9.552	9.277	9.117	9.013	8.941	8.887	8.845	8.812	8.785
3	0.100	5.538	5.462	5.391	5.343	5.309	5.285	5.266	5.252	5.240	5.230
4	0.005	31.332	26.284	24.260	23.154	22.456	21.975	21.622	21.352	21.138	20.967
4	0.010	21.198	18.000	16.694	15.977	15.522	15.207	14.976	14.799	14.659	14.546
4	0.025	12.218	10.649	9.979	9.604	9.364	9.197	9.074	8.980	8.905	8.844
4	0.050	7.709	6.944	6.591	6.388	6.256	6.163	6.094	6.041	5.999	5.964
4	0.100	4.545	4.325	4.191	4.107	4.051	4.010	3.979	3.955	3.936	3.920
5	0.005	22.785	18.314	16.530	15.556	14.939	14.513	14.200	13.961	13.772	13.618
5	0.010	16.258	13.274	12.060	11.392	10.967	10.672	10.456	10.289	10.158	10.051
5	0.025	10.007	8.434	7.764	7.388	7.146	6.978	6.853	6.757	6.681	6.619
5	0.050	6.608	5.786	5.409	5.192	5.050	4.950	4.876	4.818	4.772	4.735
5	0.100	4.060	3.780	3.619	3.520	3.453	3.405	3.368	3.339	3.316	3.297
6	0.005	18.635	14.544	12.917	12.028	11.464	11.073	10.786	10.566	10.391	10.250
6	0.010	13.745	10.925	9.780	9.148	8.746	8.466	8.260	8.102	7.976	7.874
6	0.025	8.813	7.260	6.599	6.227	5.988	5.820	5.695	5.600	5.523	5.461
6	0.050	5.987	5.143	4.757	4.534	4.387	4.284	4.207	4.147	4.099	4.060
6	0.100	3.776	3.463	3.289	3.181	3.108	3.055	3.014	2.983	2.958	2.937
7	0.005	16.235	12.404	10.883	10.050	9.522	9.155	8.885	8.678	8.514	8.380
7	0.010	12.246	9.547	8.451	7.847	7.460	7.191	6.993	6.840	6.719	6.620
7	0.025	8.073	6.542	5.890	5.523	5.285	5.119	4.995	4.899	4.823	4.761
7	0.050	5.591	4.737	4.347	4.120	3.972	3.866	3.787	3.726	3.677	3.637
7	0.100	3.589	3.257	3.074	2.961	2.883	2.827	2.785	2.752	2.725	2.703
8	0.005	14.688	11.043	9.597	8.805	8.302	7.952	7.694	7.496	7.339	7.211
8	0.010	11.259	8.649	7.591	7.006	6.632	6.371	6.178	6.029	5.911	5.814
8	0.025	7.571	6.059	5.416	5.053	4.817	4.652	4.529	4.433	4.357	4.295
8	0.050	5.318	4.459	4.066	3.838	3.688	3.581	3.500	3.438	3.388	3.347
8	0.100	3.458	3.113	2.924	2.806	2.726	2.668	2.624	2.589	2.561	2.538
9	0.005	13.614	10.107	8.717	7.956	7.471	7.134	6.885	6.693	6.541	6.417
9	0.010	10.562	8.022	6.992	6.422	6.057	5.802	5.613	5.467	5.351	5.257
9	0.025	7.209	5.715	5.078	4.718	4.484	4.320	4.197	4.102	4.026	3.964
9	0.050	5.117	4.256	3.863	3.633	3.482	3.374	3.293	3.230	3.179	3.137
9	0.100	3.360	3.006	2.813	2.693	2.611	2.551	2.505	2.469	2.440	2.416



6. Taula:  $F_{n_1, n_2}$  banaketa (Jarraipena)

$n_1$		11	12	15	20	24	30	40	60	120	$\infty$
$n_2$	$\alpha$										
1	0.005	24334	24427	24632	24837	24937	25041	25146	25254	25358	25466
1	0.010	6083.4	6106.7	6157.0	6208.7	6234.3	6260.4	6286.4	6313.0	6339.5	6365.6
1	0.025	973.03	976.72	984.87	993.08	997.27	1001.4	1005.6	1009.8	1014.0	1018.3
1	0.050	242.98	243.90	245.95	248.02	249.05	250.10	251.14	252.20	253.25	254.32
1	0.100	60.473	60.705	61.220	61.740	62.002	62.265	62.529	62.794	63.061	63.328
2	0.005	199.42	199.42	199.43	199.45	199.45	199.48	199.48	199.48	199.49	199.51
2	0.010	99.408	99.419	99.433	99.448	99.455	99.466	99.477	99.484	99.491	99.499
2	0.025	39.407	39.415	39.431	39.448	39.457	39.465	39.473	39.481	39.489	39.498
2	0.050	19.405	19.412	19.429	19.446	19.454	19.463	19.471	19.479	19.487	19.496
2	0.100	9.401	9.408	9.425	9.441	9.450	9.458	9.466	9.475	9.483	9.491
3	0.005	43.525	43.387	43.085	42.779	42.623	42.466	42.310	42.150	41.990	41.829
3	0.010	27.132	27.052	26.872	26.690	26.597	26.504	26.411	26.316	26.221	26.125
3	0.025	14.374	14.337	14.253	14.167	14.124	14.081	14.036	13.992	13.947	13.902
3	0.050	8.763	8.745	8.703	8.660	8.638	8.617	8.594	8.572	8.549	8.526
3	0.100	5.222	5.216	5.200	5.184	5.176	5.168	5.160	5.151	5.143	5.134
4	0.005	20.824	20.705	20.438	20.167	20.030	19.892	19.751	19.611	19.469	19.325
4	0.010	14.452	14.374	14.198	14.019	13.929	13.838	13.745	13.652	13.558	13.463
4	0.025	8.794	8.751	8.657	8.560	8.511	8.461	8.411	8.360	8.309	8.257
4	0.050	5.936	5.912	5.858	5.803	5.774	5.746	5.717	5.688	5.658	5.628
4	0.100	3.907	3.896	3.870	3.844	3.831	3.817	3.804	3.790	3.775	3.761
5	0.005	13.491	13.385	13.146	12.903	12.780	12.656	12.530	12.402	12.274	12.144
5	0.010	9.963	9.888	9.722	9.553	9.466	9.379	9.291	9.202	9.112	9.020
5	0.025	6.568	6.525	6.428	6.329	6.278	6.227	6.175	6.123	6.069	6.015
5	0.050	4.704	4.678	4.619	4.558	4.527	4.496	4.464	4.431	4.398	4.365
5	0.100	3.282	3.268	3.238	3.207	3.191	3.174	3.157	3.140	3.123	3.105
6	0.005	10.133	10.034	9.814	9.589	9.474	9.358	9.241	9.122	9.001	8.879
6	0.010	7.790	7.718	7.559	7.396	7.313	7.229	7.143	7.057	6.969	6.880
6	0.025	5.410	5.366	5.269	5.168	5.117	5.065	5.012	4.959	4.904	4.849
6	0.050	4.027	4.000	3.938	3.874	3.841	3.808	3.774	3.740	3.705	3.669
6	0.100	2.920	2.905	2.871	2.836	2.818	2.800	2.781	2.762	2.742	2.722
7	0.005	8.270	8.176	7.968	7.754	7.645	7.534	7.422	7.309	7.193	7.076
7	0.010	6.538	6.469	6.314	6.155	6.074	5.992	5.908	5.824	5.737	5.650
7	0.025	4.709	4.666	4.568	4.467	4.415	4.362	4.309	4.254	4.199	4.142
7	0.050	3.603	3.575	3.511	3.445	3.410	3.376	3.340	3.304	3.267	3.230
7	0.100	2.684	2.668	2.632	2.595	2.575	2.555	2.535	2.514	2.493	2.471
8	0.005	7.105	7.015	6.814	6.608	6.503	6.396	6.288	6.177	6.065	5.951
8	0.010	5.734	5.667	5.515	5.359	5.279	5.198	5.116	5.032	4.946	4.859
8	0.025	4.243	4.200	4.101	3.999	3.947	3.894	3.840	3.784	3.728	3.670
8	0.050	3.313	3.284	3.218	3.150	3.115	3.079	3.043	3.005	2.967	2.928
8	0.100	2.519	2.502	2.464	2.425	2.404	2.383	2.361	2.339	2.316	2.293
9	0.005	6.314	6.227	6.032	5.832	5.729	5.625	5.519	5.410	5.300	5.188
9	0.010	5.178	5.111	4.962	4.808	4.729	4.649	4.567	4.483	4.398	4.311
9	0.025	3.912	3.868	3.769	3.667	3.614	3.560	3.505	3.449	3.392	3.333
9	0.050	3.102	3.073	3.006	2.936	2.900	2.864	2.826	2.787	2.748	2.707
9	0.100	2.396	2.379	2.340	2.298	2.277	2.255	2.232	2.208	2.184	2.159



6. Taula:  $F_{n_1, n_2}$  banaketa (Jarraipena)

$n_1$		1	2	3	4	5	6	7	8	9	10
$n_2$	$\alpha$										
10	0.005	12.827	9.427	8.081	7.343	6.872	6.545	6.303	6.116	5.968	5.847
10	0.010	10.044	7.559	6.552	5.994	5.636	5.386	5.200	5.057	4.942	4.849
10	0.025	6.937	5.456	4.826	4.468	4.236	4.072	3.950	3.855	3.779	3.717
10	0.050	4.965	4.103	3.708	3.478	3.326	3.217	3.135	3.072	3.020	2.978
10	0.100	3.285	2.924	2.728	2.605	2.522	2.461	2.414	2.377	2.347	2.323
11	0.005	12.226	8.912	7.600	6.881	6.422	6.102	5.865	5.682	5.537	5.418
11	0.010	9.646	7.206	6.217	5.668	5.316	5.069	4.886	4.744	4.632	4.539
11	0.025	6.724	5.256	4.630	4.275	4.044	3.881	3.759	3.664	3.588	3.526
11	0.050	4.844	3.982	3.587	3.357	3.204	3.095	3.012	2.948	2.896	2.854
11	0.100	3.225	2.860	2.660	2.536	2.451	2.389	2.342	2.304	2.274	2.248
12	0.005	11.754	8.510	7.226	6.521	6.071	5.757	5.524	5.345	5.202	5.085
12	0.010	9.330	6.927	5.953	5.412	5.064	4.821	4.640	4.499	4.388	4.296
12	0.025	6.554	5.096	4.474	4.121	3.891	3.728	3.607	3.512	3.436	3.374
12	0.050	4.747	3.885	3.490	3.259	3.106	2.996	2.913	2.849	2.796	2.753
12	0.100	3.177	2.807	2.606	2.480	2.394	2.331	2.283	2.245	2.214	2.188
13	0.005	11.374	8.186	6.926	6.233	5.791	5.482	5.253	5.076	4.935	4.820
13	0.010	9.074	6.701	5.739	5.205	4.862	4.620	4.441	4.302	4.191	4.100
13	0.025	6.414	4.965	4.347	3.996	3.767	3.604	3.483	3.388	3.312	3.250
13	0.050	4.667	3.806	3.411	3.179	3.025	2.915	2.832	2.767	2.714	2.671
13	0.100	3.136	2.763	2.560	2.434	2.347	2.283	2.234	2.195	2.164	2.138
14	0.005	11.060	7.922	6.680	5.998	5.562	5.257	5.031	4.857	4.717	4.603
14	0.010	8.862	6.515	5.564	5.035	4.695	4.456	4.278	4.140	4.030	3.939
14	0.025	6.298	4.857	4.242	3.892	3.663	3.501	3.380	3.285	3.209	3.147
14	0.050	4.600	3.739	3.344	3.112	2.958	2.848	2.764	2.699	2.646	2.602
14	0.100	3.102	2.726	2.522	2.395	2.307	2.243	2.193	2.154	2.122	2.095
15	0.005	10.798	7.701	6.476	5.803	5.372	5.071	4.847	4.674	4.536	4.424
15	0.010	8.683	6.359	5.417	4.893	4.556	4.318	4.142	4.004	3.895	3.805
15	0.025	6.200	4.765	4.153	3.804	3.576	3.415	3.293	3.199	3.123	3.060
15	0.050	4.543	3.682	3.287	3.056	2.901	2.790	2.707	2.641	2.588	2.544
15	0.100	3.073	2.695	2.490	2.361	2.273	2.208	2.158	2.119	2.086	2.059
16	0.005	10.576	7.514	6.303	5.638	5.212	4.913	4.692	4.521	4.384	4.272
16	0.010	8.531	6.226	5.292	4.773	4.437	4.202	4.026	3.890	3.780	3.691
16	0.025	6.115	4.687	4.077	3.729	3.502	3.341	3.219	3.125	3.049	2.986
16	0.050	4.494	3.634	3.239	3.007	2.852	2.741	2.657	2.591	2.538	2.494
16	0.100	3.048	2.668	2.462	2.333	2.244	2.178	2.128	2.088	2.055	2.028
17	0.005	10.384	7.354	6.156	5.497	5.075	4.779	4.559	4.389	4.254	4.142
17	0.010	8.400	6.112	5.185	4.669	4.336	4.101	3.927	3.791	3.682	3.593
17	0.025	6.042	4.619	4.011	3.665	3.438	3.277	3.156	3.061	2.985	2.922
17	0.050	4.451	3.592	3.197	2.965	2.810	2.699	2.614	2.548	2.494	2.450
17	0.100	3.026	2.645	2.437	2.308	2.218	2.152	2.102	2.061	2.028	2.001
18	0.005	10.218	7.215	6.028	5.375	4.956	4.663	4.445	4.276	4.141	4.030
18	0.010	8.285	6.013	5.092	4.579	4.248	4.015	3.841	3.705	3.597	3.508
18	0.025	5.978	4.560	3.954	3.608	3.382	3.221	3.100	3.005	2.929	2.866
18	0.050	4.414	3.555	3.160	2.928	2.773	2.661	2.577	2.510	2.456	2.412
18	0.100	3.007	2.624	2.416	2.286	2.196	2.130	2.079	2.038	2.005	1.977





6. Taula:  $F_{n_1, n_2}$  banaketa (Jarraipena)

$n_1$		11	12	15	20	24	30	40	60	120	$\infty$
$n_2$	$\alpha$										
10	0.005	5.746	5.661	5.471	5.274	5.173	5.071	4.966	4.859	4.750	4.639
10	0.010	4.772	4.706	4.558	4.405	4.327	4.247	4.165	4.082	3.996	3.909
10	0.025	3.665	3.621	3.522	3.419	3.365	3.311	3.255	3.198	3.140	3.080
10	0.050	2.943	2.913	2.845	2.774	2.737	2.700	2.661	2.621	2.580	2.538
10	0.100	2.302	2.284	2.244	2.201	2.178	2.155	2.132	2.107	2.082	2.055
11	0.005	5.320	5.236	5.049	4.855	4.756	4.654	4.551	4.445	4.337	4.226
11	0.010	4.462	4.397	4.251	4.099	4.021	3.941	3.860	3.776	3.690	3.603
11	0.025	3.474	3.430	3.330	3.226	3.173	3.118	3.061	3.004	2.944	2.883
11	0.050	2.818	2.788	2.719	2.646	2.609	2.570	2.531	2.490	2.448	2.405
11	0.100	2.227	2.209	2.167	2.123	2.100	2.076	2.052	2.026	2.000	1.972
12	0.005	4.988	4.906	4.721	4.530	4.431	4.331	4.228	4.123	4.015	3.904
12	0.010	4.220	4.155	4.010	3.858	3.780	3.701	3.619	3.535	3.449	3.361
12	0.025	3.321	3.277	3.177	3.073	3.019	2.963	2.906	2.848	2.787	2.725
12	0.050	2.717	2.687	2.617	2.544	2.505	2.466	2.426	2.384	2.341	2.296
12	0.100	2.166	2.147	2.105	2.060	2.036	2.011	1.986	1.960	1.932	1.904
13	0.005	4.724	4.643	4.460	4.270	4.173	4.073	3.970	3.866	3.758	3.647
13	0.010	4.025	3.960	3.815	3.665	3.587	3.507	3.425	3.341	3.255	3.165
13	0.025	3.197	3.153	3.053	2.948	2.893	2.837	2.780	2.720	2.659	2.596
13	0.050	2.635	2.604	2.533	2.459	2.420	2.380	2.339	2.297	2.252	2.206
13	0.100	2.116	2.097	2.053	2.007	1.983	1.958	1.931	1.904	1.876	1.846
14	0.005	4.508	4.428	4.247	4.059	3.961	3.862	3.760	3.655	3.547	3.436
14	0.010	3.864	3.800	3.656	3.505	3.427	3.348	3.266	3.181	3.094	3.004
14	0.025	3.095	3.050	2.949	2.844	2.789	2.732	2.674	2.614	2.552	2.487
14	0.050	2.565	2.534	2.463	2.388	2.349	2.308	2.266	2.223	2.178	2.131
14	0.100	2.073	2.054	2.010	1.962	1.938	1.912	1.885	1.857	1.828	1.797
15	0.005	4.329	4.250	4.070	3.883	3.786	3.687	3.585	3.480	3.372	3.260
15	0.010	3.730	3.666	3.522	3.372	3.294	3.214	3.132	3.047	2.959	2.869
15	0.025	3.008	2.963	2.862	2.756	2.701	2.644	2.585	2.524	2.461	2.395
15	0.050	2.507	2.475	2.403	2.328	2.288	2.247	2.204	2.160	2.114	2.066
15	0.100	2.037	2.017	1.972	1.924	1.899	1.873	1.845	1.817	1.787	1.755
16	0.005	4.179	4.099	3.920	3.734	3.638	3.539	3.437	3.332	3.224	3.112
16	0.010	3.616	3.553	3.409	3.259	3.181	3.101	3.018	2.933	2.845	2.753
16	0.025	2.934	2.889	2.788	2.681	2.625	2.568	2.509	2.447	2.383	2.316
16	0.050	2.456	2.425	2.352	2.276	2.235	2.194	2.151	2.106	2.059	2.010
16	0.100	2.005	1.985	1.940	1.891	1.866	1.839	1.811	1.782	1.751	1.718
17	0.005	4.050	3.971	3.793	3.607	3.511	3.412	3.311	3.206	3.097	2.984
17	0.010	3.518	3.455	3.312	3.162	3.083	3.003	2.920	2.835	2.746	2.653
17	0.025	2.870	2.825	2.723	2.616	2.560	2.502	2.442	2.380	2.315	2.248
17	0.050	2.413	2.381	2.308	2.230	2.190	2.148	2.104	2.058	2.011	1.960
17	0.100	1.978	1.958	1.912	1.862	1.836	1.809	1.781	1.751	1.719	1.686
18	0.005	3.938	3.860	3.683	3.498	3.402	3.303	3.201	3.096	2.987	2.873
18	0.010	3.434	3.371	3.227	3.077	2.999	2.919	2.835	2.749	2.660	2.566
18	0.025	2.814	2.769	2.667	2.559	2.503	2.445	2.384	2.321	2.256	2.187
18	0.050	2.374	2.342	2.269	2.191	2.150	2.107	2.063	2.017	1.968	1.917
18	0.100	1.954	1.933	1.887	1.837	1.810	1.783	1.754	1.723	1.691	1.657



6. Taula:  $F_{n_1, n_2}$  banaketa (Jarraipena)

$n_1$		1	2	3	4	5	6	7	8	9	10
$n_2$	$\alpha$										
19	0.005	10.073	7.093	5.916	5.268	4.853	4.561	4.345	4.177	4.043	3.933
19	0.010	8.185	5.926	5.010	4.500	4.171	3.939	3.765	3.631	3.523	3.434
19	0.025	5.922	4.508	3.903	3.559	3.333	3.172	3.051	2.956	2.880	2.817
19	0.050	4.381	3.522	3.127	2.895	2.740	2.628	2.544	2.477	2.423	2.378
19	0.100	2.990	2.606	2.397	2.266	2.176	2.109	2.058	2.017	1.984	1.956
20	0.005	9.944	6.987	5.818	5.174	4.762	4.472	4.257	4.090	3.956	3.847
20	0.010	8.096	5.849	4.938	4.431	4.103	3.871	3.699	3.564	3.457	3.368
20	0.025	5.871	4.461	3.859	3.515	3.289	3.128	3.007	2.913	2.837	2.774
20	0.050	4.351	3.493	3.098	2.866	2.711	2.599	2.514	2.447	2.393	2.348
20	0.100	2.975	2.589	2.380	2.249	2.158	2.091	2.040	1.999	1.965	1.937
21	0.005	9.829	6.891	5.730	5.091	4.681	4.393	4.179	4.013	3.880	3.771
21	0.010	8.017	5.780	4.874	4.369	4.042	3.812	3.640	3.506	3.398	3.310
21	0.025	5.827	4.420	3.819	3.475	3.250	3.090	2.969	2.874	2.798	2.735
21	0.050	4.325	3.467	3.072	2.840	2.685	2.573	2.488	2.420	2.366	2.321
21	0.100	2.961	2.575	2.365	2.233	2.142	2.075	2.023	1.982	1.948	1.920
22	0.005	9.727	6.806	5.652	5.017	4.609	4.322	4.109	3.944	3.812	3.703
22	0.010	7.945	5.719	4.817	4.313	3.988	3.758	3.587	3.453	3.346	3.258
22	0.025	5.786	4.383	3.783	3.440	3.215	3.055	2.934	2.839	2.763	2.700
22	0.050	4.301	3.443	3.049	2.817	2.661	2.549	2.464	2.397	2.342	2.297
22	0.100	2.949	2.561	2.351	2.219	2.128	2.060	2.008	1.967	1.933	1.904
23	0.005	9.635	6.730	5.582	4.950	4.544	4.259	4.047	3.882	3.750	3.642
23	0.010	7.881	5.664	4.765	4.264	3.939	3.710	3.539	3.406	3.299	3.211
23	0.025	5.750	4.349	3.750	3.408	3.183	3.023	2.902	2.808	2.731	2.668
23	0.050	4.279	3.422	3.028	2.796	2.640	2.528	2.442	2.375	2.320	2.275
23	0.100	2.937	2.549	2.339	2.207	2.115	2.047	1.995	1.953	1.919	1.890
24	0.005	9.551	6.661	5.519	4.890	4.486	4.202	3.991	3.826	3.695	3.587
24	0.010	7.823	5.614	4.718	4.218	3.895	3.667	3.496	3.363	3.256	3.168
24	0.025	5.717	4.319	3.721	3.379	3.155	2.995	2.874	2.779	2.703	2.640
24	0.050	4.260	3.403	3.009	2.776	2.621	2.508	2.423	2.355	2.300	2.255
24	0.100	2.927	2.538	2.327	2.195	2.103	2.035	1.983	1.941	1.906	1.877
25	0.005	9.475	6.598	5.462	4.835	4.433	4.150	3.939	3.776	3.645	3.537
25	0.010	7.770	5.568	4.675	4.177	3.855	3.627	3.457	3.324	3.217	3.129
25	0.025	5.686	4.291	3.694	3.353	3.129	2.969	2.848	2.753	2.677	2.613
25	0.050	4.242	3.385	2.991	2.759	2.603	2.490	2.405	2.337	2.282	2.236
25	0.100	2.918	2.528	2.317	2.184	2.092	2.024	1.971	1.929	1.895	1.866
26	0.005	9.406	6.541	5.409	4.785	4.384	4.103	3.893	3.730	3.599	3.492
26	0.010	7.721	5.526	4.637	4.140	3.818	3.591	3.421	3.288	3.182	3.094
26	0.025	5.659	4.265	3.670	3.329	3.105	2.945	2.824	2.729	2.653	2.590
26	0.050	4.225	3.369	2.975	2.743	2.587	2.474	2.388	2.321	2.265	2.220
26	0.100	2.909	2.519	2.307	2.174	2.082	2.014	1.961	1.919	1.884	1.855
27	0.005	9.342	6.489	5.361	4.740	4.340	4.059	3.850	3.687	3.557	3.450
27	0.010	7.677	5.488	4.601	4.106	3.785	3.558	3.388	3.256	3.149	3.062
27	0.025	5.633	4.242	3.647	3.307	3.083	2.923	2.802	2.707	2.631	2.568
27	0.050	4.210	3.354	2.960	2.728	2.572	2.459	2.373	2.305	2.250	2.204
27	0.100	2.901	2.511	2.299	2.165	2.073	2.005	1.952	1.909	1.874	1.845



6. Taula:  $F_{n_1, n_2}$  banaketa (Jarraipena)

$n_1$		11	12	15	20	24	30	40	60	120	$\infty$
$n_2$	$\alpha$										
19	0.005	3.841	3.763	3.587	3.402	3.306	3.208	3.106	3.000	2.891	2.776
19	0.010	3.360	3.297	3.153	3.003	2.925	2.844	2.761	2.674	2.584	2.489
19	0.025	2.765	2.720	2.617	2.509	2.452	2.394	2.333	2.270	2.203	2.133
19	0.050	2.340	2.308	2.234	2.155	2.114	2.071	2.026	1.980	1.930	1.878
19	0.100	1.932	1.912	1.865	1.814	1.787	1.759	1.730	1.699	1.666	1.631
20	0.005	3.756	3.678	3.502	3.318	3.222	3.123	3.022	2.916	2.806	2.691
20	0.010	3.294	3.231	3.088	2.938	2.859	2.778	2.695	2.608	2.517	2.421
20	0.025	2.721	2.676	2.573	2.464	2.408	2.349	2.287	2.223	2.156	2.085
20	0.050	2.310	2.278	2.203	2.124	2.082	2.039	1.994	1.946	1.896	1.843
20	0.100	1.913	1.892	1.845	1.794	1.767	1.738	1.708	1.677	1.643	1.607
21	0.005	3.680	3.602	3.427	3.243	3.147	3.049	2.947	2.841	2.730	2.614
21	0.010	3.236	3.173	3.030	2.880	2.801	2.720	2.636	2.548	2.457	2.360
21	0.025	2.682	2.637	2.534	2.425	2.368	2.308	2.246	2.182	2.114	2.042
21	0.050	2.283	2.250	2.176	2.096	2.054	2.010	1.965	1.916	1.866	1.812
21	0.100	1.896	1.875	1.827	1.776	1.748	1.719	1.689	1.657	1.623	1.586
22	0.005	3.612	3.535	3.360	3.176	3.081	2.982	2.880	2.774	2.663	2.546
22	0.010	3.184	3.121	2.978	2.827	2.749	2.667	2.583	2.495	2.403	2.306
22	0.025	2.647	2.602	2.498	2.389	2.332	2.272	2.210	2.145	2.076	2.003
22	0.050	2.259	2.226	2.151	2.071	2.028	1.984	1.938	1.889	1.838	1.783
22	0.100	1.880	1.859	1.811	1.759	1.731	1.702	1.671	1.639	1.604	1.567
23	0.005	3.551	3.474	3.300	3.116	3.021	2.922	2.820	2.713	2.602	2.484
23	0.010	3.137	3.074	2.931	2.780	2.702	2.620	2.536	2.447	2.354	2.256
23	0.025	2.615	2.570	2.466	2.357	2.299	2.239	2.176	2.111	2.041	1.968
23	0.050	2.236	2.204	2.128	2.048	2.005	1.961	1.914	1.865	1.813	1.757
23	0.100	1.866	1.845	1.796	1.744	1.716	1.686	1.655	1.622	1.587	1.549
24	0.005	3.497	3.420	3.246	3.062	2.967	2.868	2.765	2.658	2.546	2.428
24	0.010	3.094	3.032	2.889	2.738	2.659	2.577	2.492	2.403	2.310	2.211
24	0.025	2.586	2.541	2.437	2.327	2.269	2.209	2.146	2.080	2.010	1.935
24	0.050	2.216	2.183	2.108	2.027	1.984	1.939	1.892	1.842	1.790	1.733
24	0.100	1.853	1.832	1.783	1.730	1.702	1.672	1.641	1.607	1.571	1.533
25	0.005	3.447	3.370	3.196	3.013	2.918	2.819	2.716	2.609	2.496	2.377
25	0.010	3.056	2.993	2.850	2.699	2.620	2.538	2.453	2.364	2.270	2.170
25	0.025	2.560	2.515	2.411	2.300	2.242	2.182	2.118	2.052	1.981	1.906
25	0.050	2.198	2.165	2.089	2.007	1.964	1.919	1.872	1.822	1.768	1.711
25	0.100	1.841	1.820	1.771	1.718	1.689	1.659	1.627	1.593	1.557	1.518
26	0.005	3.402	3.325	3.151	2.968	2.873	2.774	2.671	2.563	2.450	2.330
26	0.010	3.021	2.958	2.815	2.664	2.585	2.503	2.417	2.327	2.233	2.132
26	0.025	2.536	2.491	2.387	2.276	2.217	2.157	2.093	2.026	1.954	1.878
26	0.050	2.181	2.148	2.072	1.990	1.946	1.901	1.853	1.803	1.749	1.691
26	0.100	1.830	1.809	1.760	1.706	1.677	1.647	1.615	1.581	1.544	1.504
27	0.005	3.360	3.284	3.110	2.927	2.832	2.733	2.630	2.522	2.408	2.287
27	0.010	2.988	2.926	2.783	2.632	2.552	2.470	2.384	2.294	2.198	2.097
27	0.025	2.514	2.469	2.364	2.253	2.195	2.133	2.069	2.002	1.930	1.853
27	0.050	2.166	2.132	2.056	1.974	1.930	1.884	1.836	1.785	1.731	1.672
27	0.100	1.820	1.799	1.749	1.695	1.666	1.636	1.603	1.569	1.531	1.491



6. Taula:  $F_{n_1, n_2}$  banaketa (Jarraipena)

$n_1$		1	2	3	4	5	6	7	8	9	10
$n_2$	$\alpha$										
28	0.005	9.284	6.440	5.317	4.698	4.300	4.020	3.811	3.649	3.519	3.412
28	0.010	7.636	5.453	4.568	4.074	3.754	3.528	3.358	3.226	3.120	3.032
28	0.025	5.610	4.221	3.626	3.286	3.063	2.903	2.782	2.687	2.611	2.547
28	0.050	4.196	3.340	2.947	2.714	2.558	2.445	2.359	2.291	2.236	2.190
28	0.100	2.894	2.503	2.291	2.157	2.064	1.996	1.943	1.900	1.865	1.836
29	0.005	9.230	6.396	5.276	4.659	4.262	3.983	3.775	3.613	3.483	3.376
29	0.010	7.598	5.420	4.538	4.045	3.725	3.499	3.330	3.198	3.092	3.005
29	0.025	5.588	4.201	3.607	3.267	3.044	2.884	2.763	2.669	2.592	2.529
29	0.050	4.183	3.328	2.934	2.701	2.545	2.432	2.346	2.278	2.223	2.177
29	0.100	2.887	2.495	2.283	2.149	2.057	1.988	1.935	1.892	1.857	1.827
30	0.005	9.180	6.355	5.239	4.623	4.228	3.949	3.742	3.580	3.451	3.344
30	0.010	7.562	5.390	4.510	4.018	3.699	3.473	3.305	3.173	3.067	2.979
30	0.025	5.568	4.182	3.589	3.250	3.026	2.867	2.746	2.651	2.575	2.511
30	0.050	4.171	3.316	2.922	2.690	2.534	2.421	2.334	2.266	2.211	2.165
30	0.100	2.881	2.489	2.276	2.142	2.049	1.980	1.927	1.884	1.849	1.819
40	0.005	8.828	6.066	4.976	4.374	3.986	3.713	3.509	3.350	3.222	3.117
40	0.010	7.314	5.178	4.313	3.828	3.514	3.291	3.124	2.993	2.888	2.801
40	0.025	5.424	4.051	3.463	3.126	2.904	2.744	2.624	2.529	2.452	2.388
40	0.050	4.085	3.232	2.839	2.606	2.449	2.336	2.249	2.180	2.124	2.077
40	0.100	2.835	2.440	2.226	2.091	1.997	1.927	1.873	1.829	1.793	1.763
60	0.005	8.495	5.795	4.729	4.140	3.760	3.492	3.291	3.134	3.008	2.904
60	0.010	7.077	4.977	4.126	3.649	3.339	3.119	2.953	2.823	2.718	2.632
60	0.025	5.286	3.925	3.343	3.008	2.786	2.627	2.507	2.412	2.334	2.270
60	0.050	4.001	3.150	2.758	2.525	2.368	2.254	2.167	2.097	2.040	1.993
60	0.100	2.791	2.393	2.177	2.041	1.946	1.875	1.819	1.775	1.738	1.707
120	0.005	8.179	5.539	4.497	3.921	3.548	3.285	3.087	2.933	2.808	2.705
120	0.010	6.851	4.787	3.949	3.480	3.174	2.956	2.792	2.663	2.559	2.472
120	0.025	5.152	3.805	3.227	2.894	2.674	2.515	2.395	2.299	2.222	2.157
120	0.050	3.920	3.072	2.680	2.447	2.290	2.175	2.087	2.016	1.959	1.910
120	0.100	2.748	2.347	2.130	1.992	1.896	1.824	1.767	1.722	1.684	1.652
$\infty$	0.005	7.880	5.299	4.280	3.715	3.350	3.091	2.897	2.745	2.621	2.519
$\infty$	0.010	6.635	4.605	3.782	3.319	3.017	2.802	2.640	2.511	2.408	2.321
$\infty$	0.025	5.024	3.689	3.116	2.786	2.567	2.408	2.288	2.192	2.114	2.048
$\infty$	0.050	3.842	2.996	2.605	2.372	2.214	2.099	2.010	1.939	1.880	1.831
$\infty$	0.100	2.706	2.303	2.084	1.945	1.847	1.774	1.717	1.670	1.632	1.599

*Handwritten notes:*  
 $\mu = 0$   
 $1/2$





6. Taula:  $F_{n_1, n_2}$  banaketa (Jarraipena)

$n_1$		11	12	15	20	24	30	40	60	120	$\infty$
$n_2$	$\alpha$										
28	0.005	3.322	3.246	3.073	2.890	2.794	2.695	2.592	2.483	2.369	2.247
28	0.010	2.959	2.896	2.753	2.602	2.522	2.440	2.354	2.263	2.167	2.064
28	0.025	2.494	2.448	2.344	2.232	2.174	2.112	2.048	1.980	1.907	1.829
28	0.050	2.151	2.118	2.041	1.959	1.915	1.869	1.820	1.769	1.714	1.654
28	0.100	1.811	1.790	1.740	1.685	1.656	1.625	1.592	1.558	1.520	1.478
29	0.005	3.287	3.211	3.038	2.855	2.759	2.660	2.557	2.448	2.333	2.210
29	0.010	2.931	2.868	2.726	2.574	2.495	2.412	2.325	2.234	2.138	2.034
29	0.025	2.475	2.430	2.325	2.213	2.154	2.092	2.028	1.959	1.886	1.807
29	0.050	2.138	2.104	2.027	1.945	1.901	1.854	1.806	1.754	1.698	1.638
29	0.100	1.802	1.781	1.731	1.676	1.647	1.616	1.583	1.547	1.509	1.467
30	0.005	3.255	3.179	3.006	2.823	2.727	2.628	2.524	2.415	2.300	2.176
30	0.010	2.906	2.843	2.700	2.549	2.469	2.386	2.299	2.208	2.111	2.006
30	0.025	2.458	2.412	2.307	2.195	2.136	2.074	2.009	1.940	1.866	1.787
30	0.050	2.126	2.092	2.015	1.932	1.887	1.841	1.792	1.740	1.683	1.622
30	0.100	1.794	1.773	1.722	1.667	1.638	1.606	1.573	1.538	1.499	1.456
40	0.005	3.028	2.953	2.781	2.598	2.502	2.401	2.296	2.184	2.064	1.932
40	0.010	2.727	2.665	2.522	2.369	2.288	2.203	2.114	2.019	1.917	1.805
40	0.025	2.334	2.288	2.182	2.068	2.007	1.943	1.875	1.803	1.724	1.637
40	0.050	2.038	2.003	1.924	1.839	1.793	1.744	1.693	1.637	1.577	1.509
40	0.100	1.737	1.715	1.662	1.605	1.574	1.541	1.506	1.467	1.425	1.377
60	0.005	2.817	2.742	2.570	2.387	2.290	2.187	2.079	1.962	1.834	1.689
60	0.010	2.559	2.496	2.352	2.198	2.115	2.028	1.936	1.836	1.726	1.601
60	0.025	2.216	2.169	2.061	1.944	1.882	1.815	1.744	1.667	1.581	1.482
60	0.050	1.952	1.917	1.836	1.748	1.700	1.649	1.594	1.534	1.467	1.389
60	0.100	1.680	1.657	1.603	1.543	1.511	1.476	1.437	1.395	1.348	1.292
120	0.005	2.618	2.544	2.373	2.188	2.089	1.984	1.871	1.747	1.606	1.431
120	0.010	2.399	2.336	2.191	2.035	1.950	1.860	1.763	1.656	1.533	1.381
120	0.025	2.102	2.055	1.945	1.825	1.760	1.690	1.614	1.530	1.433	1.311
120	0.050	1.869	1.834	1.750	1.659	1.608	1.554	1.495	1.429	1.352	1.254
120	0.100	1.625	1.601	1.545	1.482	1.447	1.409	1.368	1.320	1.265	1.193
$\infty$	0.005	2.433	2.359	2.187	2.000	1.898	1.789	1.669	1.533	1.364	1.016
$\infty$	0.010	2.248	2.185	2.039	1.878	1.791	1.697	1.592	1.473	1.325	1.015
$\infty$	0.025	1.993	1.945	1.833	1.709	1.640	1.566	1.484	1.388	1.269	1.012
$\infty$	0.050	1.789	1.752	1.666	1.571	1.517	1.459	1.394	1.318	1.222	1.010
$\infty$	0.100	1.571	1.546	1.487	1.421	1.383	1.342	1.295	1.240	1.169	1.008



7. Taula: Estimazioaren laburpena

Parametroa	Baldintzak	Lagin-Banaketa	%(1-α)100 mailako Konfiantza-Tartea	Estatistikoa
$\mu$	Populazio normala $\sigma$ ezaguna	$\frac{\bar{X} - \mu}{\sigma/\sqrt{n}} : N(0,1)$	$\bar{X} \mp z_{\alpha/2} \frac{\sigma}{\sqrt{n}}$	$\frac{\bar{X} - \mu_0}{\sigma/\sqrt{n}}$
$\mu$	$\sigma$ ezaguna $n > 30$	$\frac{\bar{X} - \mu}{\sigma/\sqrt{n}} \approx N(0,1)$	$\bar{X} \mp z_{\alpha/2} \frac{\sigma}{\sqrt{n}}$	$\frac{\bar{X} - \mu_0}{\sigma/\sqrt{n}}$
$\mu$	Populazio normala $\sigma$ ezezaguna	$\frac{\bar{X} - \mu}{S/\sqrt{n}} : t_{n-1}$	$\bar{X} \mp t_{\alpha/2, n-1} \frac{S}{\sqrt{n}}$	$\frac{\bar{X} - \mu_0}{S/\sqrt{n}}$
$\mu_1 - \mu_2$	Populazio normal askeak $\sigma_1$ eta $\sigma_2$ ezagunak	$\frac{(\bar{X}_1 - \bar{X}_2) - (\mu_1 - \mu_2)}{\sqrt{\frac{\sigma_1^2}{n_1} + \frac{\sigma_2^2}{n_2}}} : N(0,1)$	$(\bar{X}_1 - \bar{X}_2) \mp z_{\alpha/2} \sqrt{\frac{\sigma_1^2}{n_1} + \frac{\sigma_2^2}{n_2}}$	$\frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{\sigma_1^2}{n_1} + \frac{\sigma_2^2}{n_2}}}$
$\mu_1 - \mu_2$	Populazio askeak $\sigma_1$ eta $\sigma_2$ ezagunak $n_1 > 30$ eta $n_2 > 30$	$\frac{(\bar{X}_1 - \bar{X}_2) - (\mu_1 - \mu_2)}{\sqrt{\frac{\sigma_1^2}{n_1} + \frac{\sigma_2^2}{n_2}}} \approx N(0,1)$	$(\bar{X}_1 - \bar{X}_2) \mp z_{\alpha/2} \sqrt{\frac{\sigma_1^2}{n_1} + \frac{\sigma_2^2}{n_2}}$	$\frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{\sigma_1^2}{n_1} + \frac{\sigma_2^2}{n_2}}}$
$\mu_1 - \mu_2$	Populazio normal askeak $\sigma_1$ eta $\sigma_2$ ezezagunak $\sigma_1 = \sigma_2$	$\frac{(\bar{X}_1 - \bar{X}_2) - (\mu_1 - \mu_2)}{S_p \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}} \approx t_{n_1+n_2-2}$	$(\bar{X}_1 - \bar{X}_2) \mp t_{\alpha/2; (n_1+n_2-2)} S_p \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}$	$\frac{\bar{X}_1 - \bar{X}_2}{S_p \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$
$\mu_1 - \mu_2$	Populazio normal askeak $\sigma_1$ eta $\sigma_2$ ezezagunak $\sigma_1 \neq \sigma_2$	$\frac{(\bar{X}_1 - \bar{X}_2) - (\mu_1 - \mu_2)}{\sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}}} \approx t_g$	$(\bar{X}_1 - \bar{X}_2) \mp t_{\alpha/2; g} \sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}}$	$\frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}}}$
$p$	Populazio binomiala $n > 30$	$\frac{\hat{p} - p}{\sqrt{pq/n}} \approx N(0,1)$	$\hat{p} \mp z_{\alpha/2} \sqrt{\frac{\hat{p}\hat{q}}{n}}$	$\frac{\hat{p} - p_0}{\sqrt{p_0q_0/n}}$
$p_1 - p_2$	Populazio binomial askeak $n_1 > 30$ eta $n_2 > 30$	$\frac{(\hat{p}_1 - \hat{p}_2) - (p_1 - p_2)}{\sqrt{\frac{p_1q_1}{n_1} + \frac{p_2q_2}{n_2}}} \approx N(0,1)$	$\hat{p}_1 - \hat{p}_2 \mp z_{\alpha/2} \sqrt{\frac{\hat{p}_1\hat{q}_1}{n_1} + \frac{\hat{p}_2\hat{q}_2}{n_2}}$	$\frac{\hat{p}_1 - \hat{p}_2}{\sqrt{\frac{\hat{p}_1\hat{q}_1}{n_1} + \frac{\hat{p}_2\hat{q}_2}{n_2}}}$
$\sigma^2$	Populazio normal	$\frac{(n-1)S^2}{\sigma^2} : \chi_{n-1}^2$	$\left( \frac{(n-1)S^2}{\chi_{\alpha/2, n-1}^2}, \frac{(n-1)S^2}{\chi_{1-\alpha/2, n-1}^2} \right)$	$\frac{(n-1)S^2}{\sigma_0^2}$
$\frac{\sigma_1^2}{\sigma_2^2}$	Populazio normal askeak	$\frac{S_1^2/\sigma_1^2}{S_2^2/\sigma_2^2} : F_{(n_1-1), (n_2-1)}$	$\left( \frac{S_1^2/S_2^2}{F_{\alpha/2, n_1-1, n_2-1}}, \frac{S_1^2/S_2^2}{F_{1-\alpha/2, n_1-1, n_2-1}} \right)$	$\frac{S_1^2}{S_2^2}$

$$s_v^2 = \frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{n_1 + n_2 - 2}$$

$$g = \frac{(s_1^2/n_1 + s_2^2/n_2)^2}{(s_1^2/n_1)^2 + (s_2^2/n_2)^2} \cdot \frac{n_1 - 1}{n_2 - 1}$$



8. Taula: Hipotesi-kontrastearen laburpena.

Param.	Baldintzak	Estatistikoa	Aldebiko Kontrastea <i>p</i> -balioa	Eskuin Kontrastea <i>p</i> -balioa	Ezker Kontrastea <i>p</i> -balioa
$\mu$	Populazio normala $\sigma$ ezaguna	$\frac{\bar{X} - \mu_0}{\sigma/\sqrt{n}}$	$p = 2P(Z >  z_p )$	$p = P(Z > z_p)$	$p = P(Z < z_p)$
$\mu$	$\sigma$ ezaguna $n > 30$				
$\mu$	Populazio normala $\sigma$ ezezaguna	$\frac{\bar{X} - \mu_0}{S/\sqrt{n}}$	$p = 2P(t_{n-1} >  t_p )$	$p = P(t_{n-1} > t_p)$	$p = P(t_{n-1} < t_p)$
$\mu_1 - \mu_2$	Populazio normal askeak $\sigma_1$ eta $\sigma_2$ ezagunak	$\frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{\sigma_1^2}{n_1} + \frac{\sigma_2^2}{n_2}}}$	$p = 2P(Z >  z_p )$	$p = P(Z > z_p)$	$p = P(Z < z_p)$
$\mu_1 - \mu_2$	Populazio askeak $\sigma_1$ eta $\sigma_2$ ezagunak $n_1 > 30$ eta $n_2 > 30$				
$\mu_1 - \mu_2$	Populazio normal askeak $\sigma_1$ eta $\sigma_2$ ezezagunak $\sigma_1 = \sigma_2$	$\frac{\bar{X}_1 - \bar{X}_2}{S_p \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$	$p = 2P(t_{n_1+n_2-2} >  t_p )$	$p = P(t_{n_1+n_2-2} > t_p)$	$p = P(t_{n_1+n_2-2} < t_p)$
$\mu_1 - \mu_2$	Populazio normal askeak $\sigma_1$ eta $\sigma_2$ ezezagunak $\sigma_1 \neq \sigma_2$	$\frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}}}$	$p = 2P(t_g >  t_p )$	$p = P(t_g > t_p)$	$p = P(t_g < t_p)$
$p$	Populazio binomiala $n > 30$	$\frac{\hat{p} - p_0}{\sqrt{p_0 q_0/n}}$	$p = 2P(Z >  z_p )$	$p = P(Z > z_p)$	$p = P(Z < z_p)$
$p_1 - p_2$	Populazio binomial askeak $n_1 > 30$ eta $n_2 > 30$	$\frac{\hat{p}_1 - \hat{p}_2}{\sqrt{\frac{\hat{p}_1 \hat{q}_1}{n_1} + \frac{\hat{p}_2 \hat{q}_2}{n_2}}}$			
$\sigma^2$	Populazio normal	$\frac{(n-1)S^2}{\sigma_0^2}$	$s^2 \leq \sigma_0^2 \rightarrow$ $p = 2P(\chi_{n-1}^2 < \chi_p^2)$ $s^2 > \sigma_0^2 \rightarrow$ $p = 2P(\chi_{n-1}^2 > \chi_p^2)$	$p = P(\chi_{n-1}^2 > \chi_p^2)$	$p = P(\chi_{n-1}^2 < \chi_p^2)$
$\frac{\sigma_1^2}{\sigma_2^2}$	Populazio normal askeak	$\frac{S_1^2}{S_2^2}$	$F_p \geq 1 \rightarrow$ $p = 2P(F_{n_1-1, n_2-1} > F_p)$ $F_p < 1 \rightarrow$ $p = 2P(F_{n_1-1, n_2-1} < F_p)$	$p = P(F_{n_1-1, n_2-1} > F_p)$	$p = P(F_{n_1-1, n_2-1} < F_p)$

$$s_p^2 = \frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{n_1 + n_2 - 2}$$

$$g = \frac{(s_1^2/n_1 + s_2^2/n_2)^2}{\frac{(s_1^2/n_1)^2}{n_1 - 1} + \frac{(s_2^2/n_2)^2}{n_2 - 1}}$$



A.10. Taula: Khi-karratuaren aplikazioak, bariantza-analisia eta erregresio linealaren laburpena.

Khi-karratuaren aplikazioak			
	Baldintzak	Estatistikoa	p-balioa
Independentzia & Homegenotasun probak	$e_{ij} > 5$	$\chi_p^2 = \sum_{j=1}^s \sum_{i=1}^r \frac{(o_{ij} - e_{ij})^2}{e_{ij}} = \sum_{j=1}^s \sum_{i=1}^r \frac{o_{ij}^2}{e_{ij}} - n$	$P(\chi_{(r-1) \cdot (s-1)}^2 > \chi_p^2)$
	2x2 taula $ o_{11}o_{22} - o_{12}o_{21}  \leq n/2$	$\chi_p^2 = \frac{n \cdot (o_{11}o_{22} - o_{12}o_{21})^2}{z_{.1} \cdot z_{.2} \cdot f_{1.} \cdot f_{2.}}$	$P(\chi_1^2 > \chi_p^2)$
Yates-en zuzenketa	2x2 taula $ o_{11}o_{22} - o_{12}o_{21}  > n/2$	$\chi_Y^2 = \frac{n \cdot ( o_{11}o_{22} - o_{12}o_{21}  - n/2)^2}{z_{.1} \cdot z_{.2} \cdot f_{1.} \cdot f_{2.}}$	$P(\chi_1^2 > \chi_p^2)$
Doikuntza-egokitasunerako proba	$e_i > 5$	$\chi_p^2 = \sum_{i=1}^k \frac{(o_i - e_i)^2}{e_i} = \sum_{i=1}^k \frac{o_i^2}{e_i} - n$	$P(\chi_{(k-1)}^2 > \chi_p^2)$
Bariantza analisia			
	Baldintzak	Estatistikoa	p-balioa
ANOVA proba	Bariantza berdinak	$F_p = \frac{KB(X)/(k-1)}{EKB/(n-k)}$	$P(F_{k-1; n-k} > F_p)$
Erregresio lineala			
Hipotesi-kontr.	Baldintzak	Estatistikoa	p-balioa
$\beta_1$	Y normala	$t_p = \frac{\hat{\beta}_1}{\sqrt{\frac{\hat{\sigma}^2}{\sum_{i=1}^n (x_i - \bar{x})^2}}}$	$2 \cdot P(t_{n-2} >  t_p )$
ANOVA proba	Y normala	$F_p = \frac{KB(x)/1}{EKB/(n-2)}$	$P(F_{1, (n-2)} > F_p)$
Puntu-estimazioa		Konfiantza-tartea	
$\hat{\beta}_1 = \frac{\sum_{i=1}^n (x_i - \bar{x})(y_i - \bar{y})}{\sum_{i=1}^n (x_i - \bar{x})^2}$		$\hat{\beta}_1 \mp t_{\alpha/2; (n-2)} \sqrt{\frac{\hat{\sigma}^2}{\sum_{i=1}^n (x_i - \bar{x})^2}}$	
$\hat{\beta}_0 = \bar{y} - \hat{\beta}_1 \bar{x}$		$\hat{\beta}_0 \mp t_{\alpha/2; (n-2)} \sqrt{\hat{\sigma}^2 \left[ \frac{1}{n} + \frac{\bar{x}^2}{\sum_{i=1}^n (x_i - \bar{x})^2} \right]}$	
$\hat{\rho} = \frac{\sum_{i=1}^n (x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\sum_{i=1}^n (x_i - \bar{x})^2 \sum_{i=1}^n (y_i - \bar{y})^2}}$		---	
$\hat{\sigma}^2 = \frac{\sum_{i=1}^n (y_i - \hat{y}_i)^2}{n-2} = \frac{EKB}{n-2}$		---	







