

Tabla 10: Función de distribución de la variable Normal(0,1)

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0	0.500000	0.503989	0.507978	0.511966	0.515953	0.519939	0.523922	0.527903	0.531881	0.535856
0.1	0.539828	0.543795	0.547758	0.551717	0.555670	0.559618	0.563559	0.567495	0.571424	0.575345
0.2	0.579260	0.583166	0.587064	0.590954	0.594835	0.598706	0.602568	0.606420	0.610261	0.614092
0.3	0.617911	0.621720	0.625516	0.629300	0.633072	0.636831	0.640576	0.644309	0.648027	0.651732
0.4	0.655422	0.659097	0.662757	0.666402	0.670031	0.673645	0.677242	0.680822	0.684386	0.687933
0.5	0.691462	0.694974	0.698468	0.701944	0.705401	0.708840	0.712260	0.715661	0.719043	0.722405
0.6	0.725747	0.729069	0.732371	0.735653	0.738914	0.742154	0.745373	0.748571	0.751748	0.754903
0.7	0.758036	0.761148	0.764238	0.767305	0.770350	0.773373	0.776373	0.779350	0.782305	0.785236
0.8	0.788145	0.791030	0.793892	0.796731	0.799546	0.802337	0.805105	0.807850	0.810570	0.813267
0.9	0.815940	0.818589	0.821214	0.823814	0.826391	0.828944	0.831472	0.833977	0.836457	0.838913
1.0	0.841345	0.843752	0.846136	0.848495	0.850830	0.853141	0.855428	0.857690	0.859929	0.862143
1.1	0.864334	0.866500	0.868643	0.870762	0.872857	0.874928	0.876976	0.879000	0.881000	0.882977
1.2	0.884930	0.886861	0.888768	0.890651	0.892512	0.894350	0.896165	0.897958	0.899727	0.901475
1.3	0.903200	0.904902	0.906582	0.908241	0.909877	0.911492	0.913085	0.914657	0.916207	0.917736
1.4	0.919243	0.920730	0.922196	0.923641	0.925066	0.926471	0.927855	0.929219	0.930563	0.931888
1.5	0.933193	0.934478	0.935745	0.936992	0.938220	0.939429	0.940620	0.941792	0.942947	0.944083
1.6	0.945201	0.946301	0.947384	0.948449	0.949497	0.950529	0.951543	0.952540	0.953521	0.954486
1.7	0.955435	0.956367	0.957284	0.958185	0.959070	0.959941	0.960796	0.961636	0.962462	0.963273
1.8	0.964070	0.964852	0.965620	0.966375	0.967116	0.967843	0.968557	0.969258	0.969946	0.970621
1.9	0.971283	0.971933	0.972571	0.973197	0.973810	0.974412	0.975002	0.975581	0.976148	0.976705
2.0	0.977250	0.977784	0.978308	0.978822	0.979325	0.979818	0.980301	0.980774	0.981237	0.981691
2.1	0.982136	0.982571	0.982997	0.983414	0.983823	0.984222	0.984614	0.984997	0.985371	0.985738
2.2	0.986097	0.986447	0.986791	0.987126	0.987455	0.987776	0.988089	0.988396	0.988696	0.988989
2.3	0.989276	0.989556	0.989830	0.990097	0.990358	0.990613	0.990863	0.991106	0.991344	0.991576
2.4	0.991802	0.992024	0.992240	0.992451	0.992656	0.992857	0.993053	0.993244	0.993431	0.993613
2.5	0.993790	0.993963	0.994132	0.994297	0.994457	0.994614	0.994766	0.994915	0.995060	0.995201
2.6	0.995339	0.995473	0.995604	0.995731	0.995855	0.995975	0.996093	0.996207	0.996319	0.996427
2.7	0.996533	0.996636	0.996736	0.996833	0.996928	0.997020	0.997110	0.997197	0.997282	0.997365
2.8	0.997445	0.997523	0.997599	0.997673	0.997744	0.997814	0.997882	0.997948	0.998012	0.998074
2.9	0.998134	0.998193	0.998250	0.998305	0.998359	0.998411	0.998462	0.998511	0.998559	0.998605
3.0	0.998650	0.998694	0.998736	0.998777	0.998817	0.998856	0.998893	0.998930	0.998965	0.998999
3.1	0.999032	0.999065	0.999096	0.999126	0.999155	0.999184	0.999211	0.999238	0.999264	0.999289
3.2	0.999313	0.999336	0.999359	0.999381	0.999402	0.999423	0.999443	0.999462	0.999481	0.999499
3.3	0.999517	0.999534	0.999550	0.999566	0.999581	0.999596	0.999610	0.999624	0.999638	0.999651
3.4	0.999663	0.999675	0.999687	0.999698	0.999709	0.999720	0.999730	0.999740	0.999749	0.999758
3.5	0.999767	0.999776	0.999784	0.999792	0.999800	0.999807	0.999815	0.999822	0.999828	0.999835
3.6	0.999841	0.999847	0.999853	0.999858	0.999864	0.999869	0.999874	0.999879	0.999883	0.999888
3.7	0.999892	0.999896	0.999900	0.999904	0.999908	0.999912	0.999915	0.999918	0.999922	0.999925
3.8	0.999928	0.999931	0.999933	0.999936	0.999938	0.999941	0.999943	0.999946	0.999948	0.999950
3.9	0.999952	0.999954	0.999956	0.999958	0.999959	0.999961	0.999963	0.999964	0.999966	0.999967
4.0	0.999968	0.999970	0.999971	0.999972	0.999973	0.999974	0.999975	0.999976	0.999977	0.999978

Tabla 11: Inversa de la función de distribución de la variable Chi-Cuadrado.

<i>Gr.Lib.</i>	$\chi^2_{0.005}$	$\chi^2_{0.01}$	$\chi^2_{0.025}$	$\chi^2_{0.05}$	$\chi^2_{0.1}$
1	0.000039	0.000157	0.000982	0.003932	0.015791
2	0.010025	0.020101	0.050636	0.102587	0.210721
3	0.071722	0.114832	0.215795	0.351846	0.584374
4	0.206989	0.297109	0.484419	0.710723	1.063623
5	0.411742	0.554298	0.831212	1.145476	1.610308
6	0.675727	0.872090	1.237344	1.635383	2.204131
7	0.989256	1.239042	1.689869	2.167350	2.833107
8	1.344413	1.646497	2.179731	2.732637	3.489539
9	1.734933	2.087901	2.700389	3.325113	4.168159
10	2.155856	2.558212	3.246973	3.940299	4.865182
11	2.603222	3.053484	3.815748	4.574813	5.577785
12	3.073824	3.570569	4.403789	5.226029	6.303796
13	3.565035	4.106915	5.008751	5.891864	7.041505
14	4.074675	4.660425	5.628726	6.570631	7.789534
15	4.600916	5.229349	6.262138	7.260944	8.546756
16	5.142205	5.812212	6.907664	7.961646	9.312236
17	5.697217	6.407760	7.564186	8.671760	10.085186
18	6.264805	7.014911	8.230746	9.390455	10.864936
19	6.843971	7.632730	8.906516	10.117013	11.650910
20	7.433844	8.260398	9.590777	10.850811	12.442609
21	8.033653	8.897198	10.282898	11.591305	13.239598
22	8.642716	9.542492	10.982321	12.338015	14.041493
23	9.260425	10.195716	11.688552	13.090514	14.847956
24	9.886234	10.856361	12.401150	13.848425	15.658684
25	10.519652	11.523975	13.119720	14.611408	16.473408
26	11.160237	12.198147	13.843905	15.379157	17.291885
27	11.807587	12.878504	14.573383	16.151396	18.113896
28	12.461336	13.564710	15.307861	16.927875	18.939242
29	13.121149	14.256455	16.047072	17.708366	19.767744
30	13.786720	14.953457	16.790772	18.492661	20.599235
40	20.706535	22.164261	24.433039	26.509303	29.050523
50	27.990749	29.706683	32.357364	34.764252	37.688648
60	35.534491	37.484852	40.481748	43.187958	46.458888
70	43.275180	45.441717	48.757565	51.739278	55.328940
80	51.171932	53.540077	57.153173	60.391478	64.277844
90	59.196304	61.754079	65.646618	69.126030	73.291090
100	67.327563	70.064895	74.221927	77.929465	82.358136

Tabla 12: Inversa de la función de distribución de la variable Chi-Cuadrado.

<i>Gr.Lib.</i>	$\chi^2_{0.9}$	$\chi^2_{0.95}$	$\chi^2_{0.975}$	$\chi^2_{0.99}$	$\chi^2_{0.995}$
1	2.705543	3.841459	5.023886	6.634897	7.879439
2	4.605170	5.991465	7.377759	9.210340	10.596635
3	6.251389	7.814728	9.348404	11.344867	12.838156
4	7.779440	9.487729	11.143287	13.276704	14.860259
5	9.236357	11.070498	12.832502	15.086272	16.749602
6	10.644641	12.591587	14.449375	16.811894	18.547584
7	12.017037	14.067140	16.012764	18.475307	20.277740
8	13.361566	15.507313	17.534546	20.090235	21.954955
9	14.683657	16.918978	19.022768	21.665994	23.589351
10	15.987179	18.307038	20.483177	23.209251	25.188180
11	17.275009	19.675138	21.920049	24.724970	26.756849
12	18.549348	21.026070	23.336664	26.216967	28.299519
13	19.811929	22.362032	24.735605	27.688250	29.819471
14	21.064144	23.684791	26.118948	29.141238	31.319350
15	22.307130	24.995790	27.488393	30.577914	32.801321
16	23.541829	26.296228	28.845351	31.999927	34.267187
17	24.769035	27.587112	30.191009	33.408664	35.718466
18	25.989423	28.869299	31.526378	34.805306	37.156451
19	27.203571	30.143527	32.852327	36.190869	38.582257
20	28.411981	31.410433	34.169607	37.566235	39.996846
21	29.615089	32.670573	35.478876	38.932173	41.401065
22	30.813282	33.924438	36.780712	40.289360	42.795655
23	32.006900	35.172462	38.075627	41.638398	44.181275
24	33.196244	36.415029	39.364077	42.979820	45.558512
25	34.381587	37.652484	40.646469	44.314105	46.927890
26	35.563171	38.885139	41.923170	45.641683	48.289882
27	36.741217	40.113272	43.194511	46.962942	49.644915
28	37.915923	41.337138	44.460792	48.278236	50.993376
29	39.087470	42.556968	45.722286	49.587884	52.335618
30	40.256024	43.772972	46.979242	50.892181	53.671962
40	51.805057	55.758479	59.341707	63.690740	66.765962
50	63.167121	67.504807	71.420195	76.153891	79.489978
60	74.397006	79.081944	83.297675	88.379419	91.951698
70	85.527043	90.531225	95.023184	100.425184	104.214899
80	96.578204	101.879474	106.628568	112.328793	116.321057
90	107.565009	113.145270	118.135893	124.116319	128.298944
100	118.498004	124.342113	129.561197	135.806723	140.169489

Tabla 13: Inversa de la función de distribución de la variable t-Student.

<i>Gr.Lib.</i>	$t_{0.9}$	$t_{0.95}$	$t_{0.975}$	$t_{0.99}$	$t_{0.995}$
1	3.077684	6.313752	12.706205	31.820516	63.656741
2	1.885618	2.919986	4.302653	6.964557	9.924843
3	1.637745	2.353380	3.182449	4.540703	5.840909
4	1.533206	2.131847	2.776445	3.746954	4.604097
5	1.475884	2.015048	2.570582	3.364930	4.032159
6	1.439756	1.943180	2.446912	3.142668	3.707428
7	1.414924	1.894579	2.364624	2.997952	3.499483
8	1.396815	1.859548	2.306004	2.896459	3.355387
9	1.383029	1.833113	2.262157	2.821438	3.249836
10	1.372184	1.812461	2.228139	2.763769	3.169273
11	1.363430	1.795885	2.200985	2.718079	3.105806
12	1.356217	1.782288	2.178813	2.680998	3.054540
13	1.350171	1.770933	2.160369	2.650309	3.012276
14	1.345030	1.761310	2.144787	2.624494	2.976843
15	1.340606	1.753050	2.131450	2.602480	2.946713
16	1.336757	1.745884	2.119905	2.583487	2.920782
17	1.333379	1.739607	2.109816	2.566934	2.898231
18	1.330391	1.734064	2.100922	2.552380	2.878440
19	1.327728	1.729133	2.093024	2.539483	2.860935
20	1.325341	1.724718	2.085963	2.527977	2.845340
21	1.323188	1.720743	2.079614	2.517648	2.831360
22	1.321237	1.717144	2.073873	2.508325	2.818756
23	1.319460	1.713872	2.068658	2.499867	2.807336
24	1.317836	1.710882	2.063899	2.492159	2.796940
25	1.316345	1.708141	2.059539	2.485107	2.787436
26	1.314972	1.705618	2.055529	2.478630	2.778715
27	1.313703	1.703288	2.051831	2.472660	2.770683
28	1.312527	1.701131	2.048407	2.467140	2.763262
29	1.311434	1.699127	2.045230	2.462021	2.756386
30	1.310415	1.697261	2.042272	2.457262	2.749996
40	1.303077	1.683851	2.021075	2.423257	2.704459
50	1.298714	1.675905	2.008559	2.403272	2.677793
100	1.290075	1.660234	1.983972	2.364217	2.625891
1000	1.282398	1.646379	1.962339	2.330083	2.580755

Tabla 14: Inversa de la función de Distribución de la variable F-Snedecor con $\alpha = 0.9$.

$d./n.$	1	2	3	4	5	6	7	8	9
1	39.863458	49.500000	53.593245	55.832961	57.240077	58.204416	58.905953	59.438981	59.857585
2	8.526316	9.000000	9.161790	9.243416	9.292626	9.325530	9.349081	9.366770	9.380544
3	5.538319	5.462383	5.390773	5.342644	5.309157	5.284732	5.266195	5.251671	5.239996
4	4.544771	4.324555	4.190860	4.107250	4.050579	4.009749	3.978966	3.954940	3.935671
5	4.060420	3.779716	3.619477	3.520196	3.452982	3.404507	3.367899	3.339276	3.316281
6	3.775950	3.463304	3.288762	3.180763	3.107512	3.054551	3.014457	2.983036	2.957741
7	3.589428	3.257442	3.074072	2.960534	2.883344	2.827392	2.784930	2.751580	2.724678
8	3.457919	3.113118	2.923796	2.806426	2.726447	2.668335	2.624135	2.589349	2.561238
9	3.360303	3.006452	2.812863	2.692680	2.610613	2.550855	2.505313	2.469406	2.440340
10	3.285015	2.924466	2.727673	2.605336	2.521641	2.460582	2.413965	2.377150	2.347306
11	3.225202	2.859511	2.660229	2.536188	2.451184	2.389067	2.341566	2.303997	2.273502
12	3.176549	2.806796	2.605525	2.480102	2.394022	2.331024	2.282780	2.244575	2.213525
13	3.136205	2.763167	2.560273	2.433705	2.346724	2.282979	2.234103	2.195350	2.163820
14	3.102213	2.726468	2.522224	2.394692	2.306943	2.242559	2.193134	2.153904	2.121955
15	3.073186	2.695173	2.489788	2.361433	2.273022	2.208082	2.158178	2.118530	2.086209
16	3.048110	2.668171	2.461811	2.332745	2.243758	2.178329	2.128003	2.087982	2.055331
17	3.026232	2.644638	2.437434	2.307747	2.218253	2.152392	2.101689	2.061336	2.028388
18	3.006977	2.623947	2.416005	2.285772	2.195827	2.129581	2.078541	2.037889	2.004674
19	2.989900	2.605612	2.397022	2.266303	2.175956	2.109364	2.058020	2.017098	1.983639
20	2.974653	2.589254	2.380087	2.248934	2.158227	2.091322	2.039703	1.998534	1.964853
21	2.960956	2.574569	2.364888	2.233345	2.142311	2.075123	2.023252	1.981858	1.947974
22	2.948585	2.561314	2.351170	2.219274	2.127944	2.060497	2.008397	1.966796	1.932725
23	2.937356	2.549290	2.338727	2.206512	2.114911	2.047227	1.994915	1.953124	1.918880
24	2.927117	2.538332	2.327390	2.194882	2.103033	2.035132	1.982625	1.940658	1.906255
25	2.917745	2.528305	2.317017	2.184242	2.092165	2.024062	1.971376	1.929246	1.894693
26	2.909132	2.519096	2.307491	2.174469	2.082182	2.013893	1.961039	1.918758	1.884067
27	2.901192	2.510609	2.298712	2.165463	2.072981	2.004519	1.951510	1.909087	1.874267
28	2.893846	2.502761	2.290595	2.157136	2.064473	1.995851	1.942696	1.900141	1.865199
29	2.887033	2.495483	2.283069	2.149415	2.056583	1.987811	1.934521	1.891842	1.856786
30	2.880695	2.488716	2.276071	2.142235	2.049246	1.980333	1.926916	1.884121	1.848958
40	2.835354	2.440369	2.226092	2.090950	1.996820	1.926879	1.872522	1.828863	1.792902
60	2.791068	2.393255	2.177411	2.040986	1.945710	1.874720	1.819393	1.774829	1.738020
120	2.747807	2.347338	2.129991	1.992302	1.895875	1.823812	1.767476	1.721959	1.684248

Tabla 15: Inversa de la función de Distribución de la variable F-Snedecor con $\alpha = 0.9$.

<i>d./n.</i>	10	12	15	20	24	30	40	60	120
1	60.194980	60.705212	61.220343	61.740292	62.002046	62.264970	62.529052	62.794279	63.060639
2	9.391573	9.408132	9.424711	9.441309	9.449616	9.457927	9.466244	9.474565	9.482891
3	5.230411	5.215618	5.200313	5.184482	5.176365	5.168111	5.159719	5.151187	5.142513
4	3.919876	3.895527	3.870360	3.844338	3.830994	3.817422	3.803615	3.789568	3.775275
5	3.297402	3.268239	3.238011	3.206650	3.190523	3.174084	3.157324	3.140230	3.122792
6	2.936935	2.904721	2.871222	2.836340	2.818345	2.799960	2.781169	2.761952	2.742290
7	2.702510	2.668111	2.632230	2.594732	2.575327	2.555457	2.535096	2.514218	2.492792
8	2.538037	2.501958	2.464216	2.424637	2.404097	2.383016	2.361362	2.339097	2.316181
9	2.416316	2.378885	2.339624	2.298322	2.276827	2.254720	2.231958	2.208493	2.184270
10	2.322604	2.284051	2.243515	2.200744	2.178426	2.155426	2.131691	2.107161	2.081765
11	2.248230	2.208725	2.167094	2.123046	2.100005	2.076214	2.051610	2.026118	1.999652
12	2.187764	2.147437	2.104851	2.059677	2.035993	2.011492	1.986102	1.959732	1.932278
13	2.137635	2.096588	2.053160	2.006982	1.982718	1.957575	1.931466	1.904287	1.875915
14	2.095396	2.053714	2.009535	1.962453	1.937663	1.911933	1.885163	1.857234	1.828001
15	2.059319	2.017070	1.972216	1.924314	1.899044	1.872774	1.845393	1.816764	1.786720
16	2.028145	1.985386	1.939921	1.891272	1.865561	1.838792	1.810841	1.781557	1.750747
17	2.000936	1.957716	1.911695	1.862361	1.836242	1.809010	1.780528	1.750627	1.719090
18	1.976980	1.933340	1.886811	1.836845	1.810348	1.782685	1.753706	1.723222	1.690993
19	1.955725	1.911702	1.864705	1.814155	1.787307	1.759241	1.729793	1.698758	1.665869
20	1.936738	1.892363	1.844935	1.793843	1.766667	1.738223	1.708334	1.676776	1.643256
21	1.919674	1.874975	1.827148	1.775551	1.748068	1.719268	1.688962	1.656907	1.622782
22	1.904255	1.859255	1.811057	1.758989	1.731217	1.702083	1.671382	1.638853	1.604147
23	1.890252	1.844974	1.796431	1.743921	1.715878	1.686428	1.655352	1.622371	1.587107
24	1.877480	1.831942	1.783076	1.730152	1.701854	1.672104	1.640673	1.607260	1.571459
25	1.865782	1.820003	1.770834	1.717520	1.688981	1.658947	1.627177	1.593350	1.557031
26	1.855028	1.809023	1.759571	1.705890	1.677122	1.646819	1.614725	1.580502	1.543683
27	1.845109	1.798891	1.749173	1.695144	1.666160	1.635601	1.603198	1.568595	1.531293
28	1.835930	1.789513	1.739543	1.685187	1.655997	1.625193	1.592496	1.557527	1.519759
29	1.827412	1.780807	1.730600	1.675932	1.646547	1.615511	1.582531	1.547210	1.508990
30	1.819485	1.772704	1.722272	1.667309	1.637737	1.606479	1.573228	1.537569	1.498912
40	1.762686	1.714563	1.662411	1.605151	1.574111	1.541076	1.505625	1.467157	1.424757
60	1.707009	1.657429	1.603368	1.543486	1.510718	1.475539	1.437342	1.395201	1.347568
120	1.652379	1.601204	1.545002	1.482072	1.447226	1.409379	1.367602	1.320340	1.264573

Tabla 16: Inversa de la función de Distribución de la variable F-Snedecor con $\alpha = 0.95$.

$d./n.$	1	2	3	4	5	6	7	8	9
1	161.447639	199.500000	215.707345	224.583241	230.161878	233.986000	236.768400	238.882695	240.543255
2	18.512821	19.000000	19.164292	19.246794	19.296410	19.329534	19.353218	19.370993	19.384826
3	10.127964	9.552094	9.276628	9.117182	9.013455	8.940645	8.886743	8.845238	8.812300
4	7.708647	6.944272	6.591382	6.388233	6.256057	6.163132	6.094211	6.041044	5.998779
5	6.607891	5.786135	5.409451	5.192168	5.050329	4.950288	4.875872	4.818320	4.772466
6	5.987378	5.143253	4.757063	4.533677	4.387374	4.283866	4.206658	4.146804	4.099016
7	5.591448	4.737414	4.346831	4.120312	3.971523	3.865969	3.787044	3.725725	3.676675
8	5.317655	4.458970	4.066181	3.837853	3.687499	3.580580	3.500464	3.438101	3.388130
9	5.117355	4.256495	3.862548	3.633089	3.481659	3.373754	3.292746	3.229583	3.178893
10	4.964603	4.102821	3.708265	3.478050	3.325835	3.217175	3.135465	3.071658	3.020383
11	4.844336	3.982298	3.587434	3.356690	3.203874	3.094613	3.012330	2.947990	2.896223
12	4.747225	3.885294	3.490295	3.259167	3.105875	2.996120	2.913358	2.848565	2.796375
13	4.667193	3.805565	3.410534	3.179117	3.025438	2.915269	2.832098	2.766913	2.714356
14	4.600110	3.738892	3.343889	3.112250	2.958249	2.847726	2.764199	2.698672	2.645791
15	4.543077	3.682320	3.287382	3.055568	2.901295	2.790465	2.706627	2.640797	2.587626
16	4.493998	3.633723	3.238872	3.006917	2.852409	2.741311	2.657197	2.591096	2.537667
17	4.451322	3.591531	3.196777	2.964708	2.809996	2.698660	2.614299	2.547955	2.494291
18	4.413873	3.554557	3.159908	2.927744	2.772853	2.661305	2.576722	2.510158	2.456281
19	4.380750	3.521893	3.127350	2.895107	2.740058	2.628318	2.543534	2.476770	2.422699
20	4.351244	3.492828	3.098391	2.866081	2.710890	2.598978	2.514011	2.447064	2.392814
21	4.324794	3.466800	3.072467	2.840100	2.684781	2.572712	2.487578	2.420462	2.366048
22	4.300950	3.443357	3.049125	2.816708	2.661274	2.549061	2.463774	2.396503	2.341937
23	4.279344	3.422132	3.027998	2.795539	2.639999	2.527655	2.442226	2.374812	2.320105
24	4.259677	3.402826	3.008787	2.776289	2.620654	2.508189	2.422629	2.355081	2.300244
25	4.241699	3.385190	2.991241	2.758710	2.602987	2.490410	2.404728	2.337057	2.282097
26	4.225201	3.369016	2.975154	2.742594	2.586790	2.474109	2.388314	2.320527	2.265453
27	4.210008	3.354131	2.960351	2.727765	2.571886	2.459108	2.373208	2.305313	2.250131
28	4.195972	3.340386	2.946685	2.714076	2.558128	2.445259	2.359260	2.291264	2.235982
29	4.182964	3.327654	2.934030	2.701399	2.545386	2.432434	2.346342	2.278251	2.222874
30	4.170877	3.315830	2.922277	2.689628	2.533555	2.420523	2.334344	2.266163	2.210697
40	4.084746	3.231727	2.838745	2.605975	2.449466	2.335852	2.249024	2.180170	2.124029
60	4.001191	3.150411	2.758078	2.525215	2.368270	2.254053	2.166541	2.096968	2.040098
120	3.920124	3.071779	2.680168	2.447237	2.289851	2.175006	2.086770	2.016426	1.958763

Tabla 17: Inversa de la función de Distribución de la variable F-Snedecor con $\alpha = 0.95$.

$d./n.$	10	12	15	20	24	30	40	60	120
1	241.881747	243.906038	245.949926	248.013082	249.051775	250.095148	251.143153	252.195739	253.252854
2	19.395897	19.412511	19.429135	19.445768	19.454089	19.462411	19.470736	19.479064	19.487394
3	8.785525	8.744641	8.702870	8.660190	8.638501	8.616576	8.594411	8.572004	8.549351
4	5.964371	5.911729	5.857805	5.802542	5.774389	5.745877	5.716998	5.687744	5.658105
5	4.735063	4.677704	4.618759	4.558131	4.527153	4.495712	4.463793	4.431380	4.398454
6	4.059963	3.999935	3.938058	3.874189	3.841457	3.808164	3.774286	3.739797	3.704667
7	3.636523	3.574676	3.510740	3.444525	3.410494	3.375808	3.340430	3.304323	3.267445
8	3.347163	3.283939	3.218406	3.150324	3.115240	3.079406	3.042778	3.005303	2.966923
9	3.137280	3.072947	3.006102	2.936455	2.900474	2.863652	2.825933	2.787249	2.747525
10	2.978237	2.912977	2.845017	2.774016	2.737248	2.699551	2.660855	2.621077	2.580122
11	2.853625	2.787569	2.718640	2.646445	2.608974	2.570489	2.530905	2.490123	2.448024
12	2.753387	2.686637	2.616851	2.543588	2.505482	2.466279	2.425880	2.384166	2.340995
13	2.671024	2.603661	2.533110	2.458882	2.420196	2.380334	2.339180	2.296596	2.252414
14	2.602155	2.534243	2.463003	2.387896	2.348678	2.308207	2.266350	2.222950	2.177811
15	2.543719	2.475313	2.403447	2.327535	2.287826	2.246789	2.204276	2.160105	2.114056
16	2.493513	2.424660	2.352223	2.275570	2.235405	2.193841	2.150711	2.105813	2.058895
17	2.449916	2.380654	2.307693	2.230354	2.189766	2.147708	2.103998	2.058411	2.010663
18	2.411702	2.342067	2.268622	2.190648	2.149665	2.107143	2.062885	2.016643	1.968100
19	2.377934	2.307954	2.234063	2.155497	2.114143	2.071186	2.026410	1.979544	1.930237
20	2.347878	2.277581	2.203274	2.124155	2.082454	2.039086	1.993819	1.946358	1.896318
21	2.320953	2.250362	2.175670	2.096033	2.054004	2.010248	1.964515	1.916486	1.865739
22	2.296696	2.225831	2.150778	2.070656	2.028319	1.984195	1.938018	1.889445	1.838018
23	2.274728	2.203607	2.128217	2.047638	2.005009	1.960537	1.913938	1.864844	1.812760
24	2.254739	2.183380	2.107673	2.026664	1.983760	1.938957	1.891955	1.842360	1.789642
25	2.236474	2.164891	2.088887	2.007471	1.964306	1.919188	1.871801	1.821727	1.768395
26	2.219718	2.147926	2.071642	1.989842	1.946428	1.901010	1.853255	1.802719	1.748795
27	2.204292	2.132303	2.055755	1.973590	1.929940	1.884236	1.836129	1.785149	1.730650
28	2.190044	2.117869	2.041071	1.958561	1.914686	1.868709	1.820263	1.768857	1.713800
29	2.176844	2.104493	2.027458	1.944620	1.900531	1.854293	1.805523	1.753704	1.698107
30	2.164580	2.092063	2.014804	1.931653	1.887360	1.840872	1.791790	1.739574	1.683452
40	2.077248	2.003459	1.924463	1.838859	1.792937	1.744432	1.692797	1.637252	1.576610
60	1.992592	1.917396	1.836437	1.747984	1.700117	1.649141	1.594273	1.534314	1.467267
120	1.910461	1.833695	1.750497	1.658680	1.608437	1.554343	1.495202	1.429013	1.351886

Tabla 18: Inversa de la función de Distribución de la variable F-Snedecor con $\alpha = 0.975$.

$d./n.$	1	2	3	4	5	6	7	8	9
1	647.789011	799.500000	864.162972	899.583310	921.847903	937.111083	948.216889	956.656221	963.284579
2	38.506329	39.000000	39.165495	39.248418	39.298228	39.331458	39.355205	39.373022	39.386883
3	17.443443	16.044106	15.439182	15.100979	14.884823	14.734718	14.624395	14.539887	14.473081
4	12.217863	10.649111	9.979199	9.604530	9.364471	9.197311	9.074141	8.979580	8.904682
5	10.006982	8.433621	7.763589	7.387886	7.146382	6.977702	6.853076	6.757172	6.681054
6	8.813101	7.259856	6.598799	6.227161	5.987565	5.819757	5.695470	5.599623	5.523407
7	8.072669	6.541520	5.889819	5.522594	5.285237	5.118597	4.994909	4.899341	4.823217
8	7.570882	6.059467	5.415962	5.052632	4.817276	4.651696	4.528562	4.433260	4.357233
9	7.209283	5.714705	5.078119	4.718078	4.484411	4.319722	4.197047	4.101956	4.025994
10	6.936728	5.456396	4.825621	4.468342	4.236086	4.072131	3.949824	3.854891	3.778963
11	6.724130	5.255889	4.630025	4.275072	4.043998	3.880651	3.758638	3.663819	3.587899
12	6.553769	5.095867	4.474185	4.121209	3.891134	3.728292	3.606515	3.511777	3.435846
13	6.414254	4.965266	4.347178	3.995898	3.766674	3.604256	3.482669	3.387987	3.312032
14	6.297939	4.856698	4.241728	3.891914	3.663423	3.501365	3.379933	3.285288	3.209300
15	6.199501	4.765048	4.152804	3.804271	3.576415	3.414665	3.293360	3.198738	3.122712
16	6.115127	4.686665	4.076823	3.729417	3.502116	3.340631	3.219431	3.124822	3.048753
17	6.042013	4.618874	4.011163	3.664754	3.437944	3.276689	3.155577	3.060973	2.984859
18	5.978052	4.559672	3.953863	3.608344	3.381968	3.220915	3.099877	3.005271	2.929112
19	5.921631	4.507528	3.903428	3.558706	3.332718	3.171844	3.050868	2.956257	2.880052
20	5.871494	4.461255	3.858699	3.514695	3.289056	3.128340	3.007416	2.912797	2.836546
21	5.826648	4.419918	3.818761	3.475408	3.250084	3.089509	2.968630	2.873999	2.797704
22	5.786299	4.382768	3.782886	3.440126	3.215087	3.054639	2.933799	2.839155	2.762815
23	5.749805	4.349202	3.750486	3.408268	3.183488	3.023154	2.902347	2.807689	2.731307
24	5.716639	4.318726	3.721080	3.379359	3.154816	2.994586	2.873808	2.779135	2.702711
25	5.686366	4.290932	3.694273	3.353009	3.128684	2.968549	2.847795	2.753106	2.676642
26	5.658624	4.265483	3.669736	3.328894	3.104770	2.944720	2.823988	2.729283	2.652780
27	5.633109	4.242094	3.647192	3.306741	3.082802	2.922831	2.802118	2.707396	2.630856
28	5.609564	4.220525	3.626408	3.286321	3.062554	2.902655	2.781959	2.687220	2.610643
29	5.587768	4.200572	3.607187	3.267438	3.043830	2.883998	2.763317	2.668562	2.591950
30	5.567535	4.182061	3.589359	3.249925	3.026466	2.866696	2.746027	2.651256	2.574610
40	5.423937	4.050992	3.463260	3.126114	2.903722	2.744382	2.623781	2.528863	2.451939
60	5.285611	3.925265	3.342520	3.007659	2.786315	2.627370	2.506792	2.411672	2.334406
120	5.152331	3.804638	3.226890	2.894308	2.673988	2.515401	2.394794	2.299410	2.221730

Tabla 19: Inversa de la función de Distribución de la variable F-Snedecor con $\alpha = 0.975$.

$d./n.$	10	12	15	20	24	30	40	60	120
1	968.627444	976.707950	984.866841	993.102805	997.249245	1001.414408	1005.598097	1009.800110	1014.020239
2	39.397975	39.414615	39.431261	39.447911	39.456238	39.464566	39.472895	39.481226	39.489557
3	14.418942	14.336552	14.252711	14.167381	14.124146	14.080523	14.036509	13.992098	13.947285
4	8.843881	8.751159	8.656541	8.559943	8.510873	8.461274	8.411132	8.360436	8.309170
5	6.619154	6.524549	6.427728	6.328555	6.278040	6.226879	6.175050	6.122529	6.069293
6	5.461324	5.366244	5.268667	5.168401	5.117192	5.065227	5.012471	4.958891	4.904446
7	4.761116	4.665830	4.567787	4.466740	4.414999	4.362393	4.308876	4.254398	4.198904
8	4.295127	4.199667	4.101213	3.999453	3.947220	3.894016	3.839780	3.784446	3.727940
9	3.963865	3.868220	3.769357	3.666906	3.614196	3.560410	3.505474	3.449302	3.391799
10	3.716792	3.620945	3.521673	3.418544	3.365369	3.311017	3.255396	3.198402	3.139914
11	3.525672	3.429613	3.329935	3.226145	3.172519	3.117617	3.061330	3.003533	2.944078
12	3.373553	3.277277	3.177201	3.072773	3.018711	2.963278	2.906346	2.847768	2.787365
13	3.249668	3.153175	3.052713	2.947671	2.893191	2.837247	2.779693	2.720356	2.659029
14	3.146861	3.050155	2.949321	2.843691	2.788811	2.732377	2.674223	2.614152	2.551924
15	3.060197	2.963282	2.862093	2.755902	2.700640	2.643735	2.585005	2.524226	2.461122
16	2.986163	2.889048	2.787518	2.680793	2.625166	2.567813	2.508529	2.447066	2.383111
17	2.922195	2.824886	2.723032	2.615799	2.559824	2.502042	2.442228	2.380105	2.315324
18	2.866376	2.768881	2.666719	2.559003	2.502697	2.444504	2.384181	2.321422	2.255839
19	2.817245	2.719574	2.617118	2.508943	2.452321	2.393736	2.332924	2.269552	2.203191
20	2.773671	2.675831	2.573096	2.464484	2.407562	2.348602	2.287322	2.223359	2.156242
21	2.734764	2.636762	2.533762	2.424735	2.367526	2.308208	2.246478	2.181945	2.114094
22	2.699813	2.601657	2.498405	2.388983	2.331500	2.271840	2.209678	2.144594	2.076031
23	2.668244	2.569941	2.466451	2.356652	2.298907	2.238919	2.176343	2.110728	2.041473
24	2.639590	2.541148	2.437429	2.327271	2.269277	2.208976	2.146000	2.079873	2.009946
25	2.613466	2.514890	2.410954	2.300455	2.242222	2.181619	2.118261	2.051639	1.981058
26	2.589551	2.490848	2.386705	2.275879	2.217418	2.156527	2.092800	2.025699	1.954483
27	2.567576	2.468752	2.364412	2.253274	2.194595	2.133427	2.069345	2.001781	1.929947
28	2.547315	2.448375	2.343847	2.232411	2.173522	2.112088	2.047664	1.979653	1.907218
29	2.528575	2.429524	2.324816	2.213095	2.154006	2.092317	2.027563	1.959118	1.886098
30	2.511191	2.412034	2.307154	2.195160	2.135879	2.073944	2.008872	1.940008	1.866418
40	2.388161	2.288157	2.181903	2.067714	2.006868	1.942916	1.875197	1.802770	1.724205
60	2.270198	2.169192	2.061308	1.944470	1.881696	1.815202	1.744046	1.666791	1.581034
120	2.157011	2.054820	1.944992	1.824920	1.759725	1.689944	1.614147	1.529942	1.432677

Tabla 20: Inversa de la función de Distribución de la variable F-Snedecor con $\alpha = 0.99$.

<i>d./n.</i>	1	2	3	4	5	6	7	8	9
1	4052.180695	4999.500000	5403.352014	5624.583330	5763.649554	5858.986107	5928.355732	5981.070308	6022.473245
2	98.502513	99.000000	99.166201	99.249372	99.299296	99.332589	99.356374	99.374215	99.388093
3	34.116222	30.816520	29.456695	28.709898	28.237081	27.910657	27.671696	27.489177	27.345206
4	21.197690	18.000000	16.694369	15.977025	15.521858	15.206865	14.975758	14.798889	14.659134
5	16.258177	13.273934	12.059954	11.391928	10.967021	10.672255	10.455511	10.289311	10.157762
6	13.745023	10.924767	9.779538	9.148301	8.745895	8.466125	8.259995	8.101651	7.976121
7	12.246383	9.546578	8.451285	7.846645	7.460435	7.191405	6.992833	6.840049	6.718752
8	11.258624	8.649111	7.590992	7.006077	6.631825	6.370681	6.177624	6.028870	5.910619
9	10.561431	8.021517	6.991917	6.422085	6.056941	5.801770	5.612865	5.467123	5.351129
10	10.044289	7.559432	6.552313	5.994339	5.636326	5.385811	5.200121	5.056693	4.942421
11	9.646034	7.205713	6.216730	5.668300	5.316009	5.069210	4.886072	4.744468	4.631540
12	9.330212	6.926608	5.952545	5.411951	5.064343	4.820574	4.639502	4.499365	4.387510
13	9.073806	6.700965	5.739380	5.205330	4.861621	4.620363	4.440997	4.302062	4.191078
14	8.861593	6.514884	5.563886	5.035378	4.694964	4.455820	4.277882	4.139946	4.029680
15	8.683117	6.358873	5.416965	4.893210	4.555614	4.318273	4.141546	4.004453	3.894788
16	8.530965	6.226235	5.292214	4.772578	4.437420	4.201634	4.025947	3.889572	3.780415
17	8.399740	6.112114	5.185000	4.668968	4.335939	4.101505	3.926719	3.790964	3.682242
18	8.285420	6.012905	5.091890	4.579036	4.247882	4.014637	3.840639	3.705422	3.597074
19	8.184947	5.925879	5.010287	4.500258	4.170767	3.938573	3.765269	3.630525	3.522503
20	8.095958	5.848932	4.938193	4.430690	4.102685	3.871427	3.698740	3.564412	3.456676
21	8.016597	5.780416	4.874046	4.368815	4.042144	3.811725	3.639590	3.505632	3.398147
22	7.945386	5.719022	4.816606	4.313429	3.987963	3.758301	3.586660	3.453034	3.345773
23	7.881134	5.663699	4.764877	4.263567	3.939195	3.710218	3.539024	3.405695	3.298634
24	7.822871	5.613591	4.718051	4.218445	3.895070	3.666717	3.495928	3.362867	3.255985
25	7.769798	5.567997	4.675465	4.177420	3.854957	3.627174	3.456754	3.323937	3.217217
26	7.721254	5.526335	4.636570	4.139960	3.818336	3.591075	3.420993	3.288399	3.181824
27	7.676684	5.488118	4.600907	4.105622	3.784770	3.557991	3.388219	3.255827	3.149385
28	7.635619	5.452937	4.568091	4.074032	3.753895	3.527559	3.358073	3.225868	3.119547
29	7.597663	5.420445	4.537795	4.044873	3.725399	3.499475	3.330252	3.198219	3.092009
30	7.562476	5.390346	4.509740	4.017877	3.699019	3.473477	3.304499	3.172624	3.066516
40	7.314100	5.178508	4.312569	3.828294	3.513840	3.291012	3.123757	2.992981	2.887560
60	7.077106	4.977432	4.125892	3.649047	3.338884	3.118674	2.953049	2.823280	2.718454
120	6.850893	4.786510	3.949100	3.479531	3.173545	2.955854	2.791764	2.662906	2.558574

Tabla 21: Inversa de la función de Distribución de la variable F-Snedecor con $\alpha = 0.99$.

$d./n.$	10	12	15	20	24	30	40	60	120
1	6055.846707	6106.320708	6157.284615	6208.730222	6234.630894	6260.648579	6286.782054	6313.030053	6339.391275
2	99.399196	99.415852	99.432511	99.449171	99.457502	99.465833	99.474165	99.482497	99.490829
3	27.228734	27.051819	26.872195	26.689791	26.597523	26.504534	26.410813	26.316351	26.221139
4	14.545901	14.373587	14.198202	14.019609	13.929064	13.837660	13.745379	13.652198	13.558096
5	10.051017	9.888275	9.722219	9.552646	9.466471	9.379329	9.291189	9.202015	9.111771
6	7.874119	7.718333	7.558994	7.395832	7.312721	7.228533	7.143222	7.056737	6.969023
7	6.620063	6.469091	6.314331	6.155438	6.074319	5.992010	5.908449	5.823566	5.737286
8	5.814294	5.666719	5.515125	5.359095	5.279264	5.198130	5.115610	5.031618	4.946052
9	5.256542	5.111431	4.962078	4.807995	4.728998	4.648582	4.566649	4.483087	4.397769
10	4.849147	4.705870	4.558140	4.405395	4.326929	4.246933	4.165287	4.081855	3.996481
11	4.539282	4.397401	4.250867	4.099046	4.020910	3.941132	3.859573	3.776071	3.690436
12	4.296054	4.155258	4.009619	3.858433	3.780485	3.700789	3.619181	3.535473	3.449440
13	4.100267	3.960326	3.815365	3.664609	3.586753	3.507042	3.425293	3.341287	3.254760
14	3.939396	3.800141	3.655697	3.505222	3.427387	3.347596	3.265641	3.181274	3.094191
15	3.804940	3.666240	3.522194	3.371892	3.294029	3.214110	3.131906	3.047135	2.959453
16	3.690931	3.552687	3.408947	3.258737	3.180811	3.100733	3.018248	2.933046	2.844737
17	3.593066	3.455198	3.311694	3.161518	3.083502	3.003241	2.920458	2.834806	2.745852
18	3.508162	3.370608	3.227286	3.077097	2.998974	2.918516	2.835420	2.749309	2.659701
19	3.433817	3.296527	3.153343	3.003109	2.924866	2.844201	2.760786	2.674211	2.583944
20	3.368186	3.231120	3.088041	2.937735	2.859363	2.778485	2.694749	2.607708	2.516783
21	3.309830	3.172953	3.029951	2.879556	2.801050	2.719955	2.635896	2.548393	2.456813
22	3.257606	3.120891	2.977946	2.827447	2.748802	2.667490	2.583111	2.495149	2.402919
23	3.210599	3.074025	2.931118	2.780504	2.701720	2.620191	2.535496	2.447081	2.354209
24	3.168069	3.031615	2.888732	2.737997	2.659072	2.577329	2.492321	2.403461	2.309955
25	3.129406	2.993056	2.850186	2.699325	2.620260	2.538305	2.452990	2.363691	2.269562
26	3.094108	2.957848	2.814982	2.663991	2.584787	2.502624	2.417007	2.327279	2.232536
27	3.061754	2.925573	2.782703	2.631580	2.552239	2.469872	2.383960	2.293812	2.198465
28	3.031992	2.895881	2.753000	2.601744	2.522268	2.439701	2.353501	2.262941	2.167001
29	3.004524	2.868472	2.725577	2.574188	2.494579	2.411817	2.325335	2.234372	2.137851
30	2.979094	2.843095	2.700180	2.548659	2.468921	2.385967	2.299211	2.207854	2.110762
40	2.800545	2.664827	2.521616	2.368876	2.287998	2.203382	2.114232	2.019411	1.917191
60	2.631751	2.496116	2.352297	2.197806	2.115364	2.028479	1.936018	1.836259	1.726320
120	2.472077	2.336300	2.191504	2.034588	1.950018	1.860005	1.762849	1.655693	1.532992

Tabla 22: Tabla Números aleatorios: enteros entre 0 y 99999 (generados con R)

<i>F/C</i>	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1	26776	58587	56041	75428	7539	81909	64024	66807	13802	74725	2799	29420	55658	29160
2	50497	71432	97244	92480	10677	92645	1524	98592	84356	81799	26367	95085	12466	38906
3	72729	82438	98941	19202	39210	40180	91722	29687	76807	57258	16231	99558	79083	32391
4	45900	15381	26830	67457	58260	15374	66338	75653	25902	12879	41307	64205	32017	35523
5	91137	8023	85925	87911	89117	47587	55514	30607	96123	11541	81671	24105	39002	97611
6	2376	67450	51703	42217	11795	23621	65350	39467	90119	53702	93851	19669	49657	55993
7	17051	26498	25584	91979	77400	22776	56040	22435	97466	74123	1101	52823	47786	47325
8	957	42261	4385	54277	94698	11730	16071	28241	3752	40192	52688	6771	88840	71069
9	22101	6192	1934	19657	16669	25450	85714	18916	1496	6748	93755	56021	64238	51774
10	41170	66324	58985	69805	71953	77425	36563	18591	62319	76389	99498	56511	68715	75296
11	30742	49670	71057	37457	16076	88682	16327	28598	18404	5566	73529	23560	36999	82372
12	95666	99865	76952	36248	75368	9585	72868	17399	19172	82578	25046	91609	72422	48658
13	93110	86598	50607	76476	86257	4632	58981	81988	15995	53623	49151	91370	19190	60046
14	90645	22597	82137	52820	62965	69131	34284	62301	29621	6126	7696	71938	11781	14559
15	97635	69574	50828	30791	17717	78012	85168	62303	81324	57733	30852	63055	23	95478
16	80240	17894	76439	78997	20154	10691	22162	37148	60721	74415	8494	98625	55400	44742
17	80862	83430	11309	71641	25482	20834	69628	57126	37823	29008	40083	99021	14532	95218
18	43427	15731	97566	37773	29217	52348	55833	38643	27632	48540	56235	50341	55651	54863
19	92070	94035	26069	98132	193	7773	13652	57296	59076	42704	53975	89585	40019	78628
20	85890	54340	37710	50306	49998	84727	74400	92483	78224	45492	3130	35599	9447	93100
21	82538	53819	3263	54277	56849	30684	3957	93205	59928	17549	63830	32722	1158	20147
22	10754	54497	38602	48482	11182	87055	50460	8779	82931	38152	54386	32788	21975	62641
23	26382	86888	99358	38917	93718	56844	2020	39650	92519	2591	75922	25358	89784	42634
24	9807	86300	47633	29377	24185	51250	24083	69873	38677	81570	19361	5646	49992	3476
25	1566	12576	34414	65407	68823	21709	71684	16499	56947	48773	26503	71420	38416	42098
26	96601	55773	94873	71563	49804	88245	76084	80925	53675	12570	71807	70666	17089	40792
27	65765	77404	91177	92974	30059	51552	69232	97687	51251	37841	50155	75057	36146	95666
28	93149	9225	99855	61119	2867	85676	13265	32033	49811	49440	34591	4879	48714	83286
29	48118	25194	20321	72967	37846	75223	9684	9902	25720	82390	10396	29440	56365	29035
30	50701	90987	59982	88440	5281	63030	47832	91895	89447	64589	2045	56713	93948	31621
31	58675	27633	84054	43366	81807	4494	13193	98635	90297	35950	96733	79604	63143	13752
32	1786	3049	36187	73802	49173	39327	81359	13568	81631	75835	75020	47744	83222	3995
33	48296	95979	76644	28201	19397	21863	23131	59787	84671	37111	29557	35822	21655	32874
34	67249	8290	79587	55283	29492	34125	42268	8174	65380	25364	97529	95022	92717	11163
35	1184	431	80464	73696	39576	67691	68429	23136	92304	95586	82145	80409	58204	18476
36	31502	76846	15726	16618	30147	23803	62360	30211	13199	3719	11569	44869	34063	42618
37	40385	44388	60011	94438	92339	23189	51268	63329	41252	66229	85295	73411	91496	17875
38	6963	66476	49753	37252	44290	93051	85417	96677	5438	49234	97683	56383	87896	16307
39	96217	61946	43477	73574	87898	58602	88025	77917	43313	77767	53201	65031	73587	57447
40	83400	68653	88819	73830	2601	45578	84875	94095	4526	59115	16098	2160	44591	31417
41	82596	69182	33665	9031	24088	51114	17453	17757	18401	32777	2362	77	77202	31344
42	62795	56332	76478	59500	96982	48999	23288	13414	45139	48252	70676	86478	503	57491
43	62705	53583	8698	80458	22278	38374	16028	49731	5239	4162	46221	64108	89291	81909
44	69701	14325	32404	28122	77263	70035	75515	40888	4622	37098	87182	71848	5859	14685
45	55126	61604	97351	92042	13671	61187	17472	21014	27759	38819	86487	84136	58632	70884
46	43083	42949	65080	25760	13012	17930	35514	67207	6977	84242	20189	31025	24928	71931
47	86676	81458	15048	7074	31737	26102	75136	89060	17469	85087	67990	53302	72388	48653
48	64883	81215	63380	83723	91447	20155	57045	89102	65856	69573	34789	14392	73467	24605
49	1349	70196	65073	40500	1458	96145	56292	93303	20019	5999	35601	31400	97307	7440
50	56253	17135	81205	28874	50609	77928	88600	75732	21098	79329	78049	81304	3798	40407