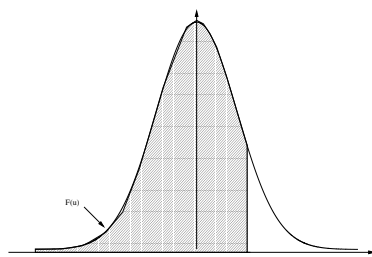# 1 Loi normale : fonction de répartition

Pour une valeur $u \geqslant 0$, la table ci-dessous renvoie la valeur $F(u)$ de la fonction de répartition F de la loi normale centrée réduite au point u.
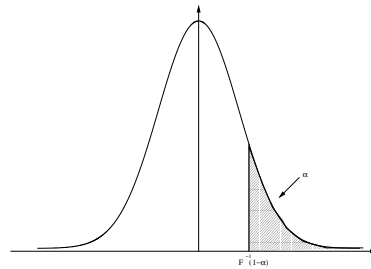

u	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.0	0.5000	0.5040	0.5080	0.5120	0.5160	0.5199	0.5239	0.5279	0.5319	0.5359
0.1	0.5398	0.5438	0.5478	0.5517	0.5557	0.5596	0.5636	0.5675	0.5714	0.5753
0.2	0.5793	0.5832	0.5871	0.5910	0.5948	0.5987	0.6026	0.6064	0.6103	0.6141
0.3	0.6179	0.6217	0.6255	0.6293	0.6331	0.6368	0.6406	0.6443	0.6480	0.6517
0.4	0.6554	0.6591	0.6628	0.6664	0.6700	0.6736	0.6772	0.6808	0.6844	0.6879
0.5	0.6915	0.6950	0.6985	0.7019	0.7054	0.7088	0.7123	0.7157	0.7190	0.7224
0.6	0.7257	0.7291	0.7324	0.7357	0.7389	0.7422	0.7454	0.7486	0.7517	0.7549
0.7	0.7580	0.7611	0.7642	0.7673	0.7704	0.7734	0.7764	0.7794	0.7823	0.7852
0.8	0.7881	0.7910	0.7939	0.7967	0.7995	0.8023	0.8051	0.8078	0.8106	0.8133
0.9	0.8159	0.8186	0.8212	0.8238	0.8264	0.8289	0.8315	0.8340	0.8365	0.8389
1.0	0.8413	0.8438	0.8461	0.8485	0.8508	0.8531	0.8554	0.8577	0.8599	0.8621
1.1	0.8643	0.8665	0.8686	0.8708	0.8729	0.8749	0.8770	0.8790	0.8810	0.8830
1.2	0.8849	0.8869	0.8888	0.8907	0.8925	0.8944	0.8962	0.8980	0.8997	0.9015
1.3	0.9032	0.9049	0.9066	0.9082	0.9099	0.9115	0.9131	0.9147	0.9162	0.9177
1.4	0.9192	0.9207	0.9222	0.9236	0.9251	0.9265	0.9279	0.9292	0.9306	0.9319
1.5	0.9332	0.9345	0.9357	0.9370	0.9382	0.9394	0.9406	0.9418	0.9429	0.9441
1.6	0.9452	0.9463	0.9474	0.9484	0.9495	0.9505	0.9515	0.9525	0.9535	0.9545
1.7	0.9554	0.9564	0.9573	0.9582	0.9591	0.9599	0.9608	0.9616	0.9625	0.9633
1.8	0.9641	0.9649	0.9656	0.9664	0.9671	0.9678	0.9686	0.9693	0.9699	0.9706
1.9	0.9713	0.9719	0.9726	0.9732	0.9738	0.9744	0.9750	0.9756	0.9761	0.9767
2.0	0.9772	0.9778	0.9783	0.9788	0.9793	0.9798	0.9803	0.9808	0.9812	0.9817
2.1	0.9821	0.9826	0.9830	0.9834	0.9838	0.9842	0.9846	0.9850	0.9854	0.9857
2.2	0.9861	0.9864	0.9868	0.9871	0.9875	0.9878	0.9881	0.9884	0.9887	0.9890
2.3	0.9893	0.9896	0.9898	0.9901	0.9904	0.9906	0.9909	0.9911	0.9913	0.9916
2.4	0.9918	0.9920	0.9922	0.9925	0.9927	0.9929	0.9931	0.9932	0.9934	0.9936
2.5	0.9938	0.9940	0.9941	0.9943	0.9945	0.9946	0.9948	0.9949	0.9951	0.9952
2.6	0.9953	0.9955	0.9956	0.9957	0.9959	0.9960	0.9961	0.9962	0.9963	0.9964
2.7	0.9965	0.9966	0.9967	0.9968	0.9969	0.9970	0.9971	0.9972	0.9973	0.9974
2.8	0.9974	0.9975	0.9976	0.9977	0.9977	0.9978	0.9979	0.9979	0.9980	0.9981
2.9	0.9981	0.9982	0.9982	0.9983	0.9984	0.9984	0.9985	0.9985	0.9986	0.9986

Table pour les grandes valeurs de u :

u	3.0	3.1	3.2	3.3	3.4
$F(u)$	0.99865	0.999032	0.999313	0.999517	0.999663

u	3.5	3.6	3.7	3.8	3.9
$F(u)$	0.999767	0.999841	0.999892	0.999928	0.999952

u	4.0	4.1	4.2	4.3	4.4
$F(u)$	0.999968	0.999979	0.999987	0.999991	0.999995

| u	4.5	4.6	4.7	4.8	4.9
$F(u)$	0.999997	0.999998	0.999999	0.999999	1

2   Loi normale : quantiles

Pour une valeur $\alpha \in]0\,;0.5[$, la table ci-dessous renvoie la valeur $F^{-1}(1-\alpha)$ de la fonction quantile F^{-1} de la loi normale centrée réduite au point $1-\alpha$.

α	0.000	0.001	0.002	0.003	0.004	0.005	0.006	0.007	0.008	0.009
0.00	∞	3.0902	2.8782	2.7478	2.6521	2.5758	2.5121	2.4573	2.4089	2.3656
0.01	2.3263	2.2904	2.2571	2.2262	2.1973	2.1701	2.1444	2.1201	2.0969	2.0749
0.02	2.0537	2.0335	2.0141	1.9954	1.9774	1.9600	1.9431	1.9268	1.9110	1.8957
0.03	1.8808	1.8663	1.8522	1.8384	1.8250	1.8119	1.7991	1.7866	1.7744	1.7624
0.04	1.7507	1.7392	1.7279	1.7169	1.7060	1.6954	1.6849	1.6747	1.6646	1.6546
0.05	1.6449	1.6352	1.6258	1.6164	1.6072	1.5982	1.5893	1.5805	1.5718	1.5632
0.06	1.5548	1.5464	1.5382	1.5301	1.5220	1.5141	1.5063	1.4985	1.4909	1.4833
0.07	1.4758	1.4684	1.4611	1.4538	1.4466	1.4395	1.4325	1.4255	1.4187	1.4118
0.08	1.4051	1.3984	1.3917	1.3852	1.3787	1.3722	1.3658	1.3595	1.3532	1.3469
0.09	1.3408	1.3346	1.3285	1.3225	1.3165	1.3106	1.3047	1.2988	1.2930	1.2873
0.10	1.2816	1.2759	1.2702	1.2646	1.2591	1.2536	1.2481	1.2426	1.2372	1.2319
0.11	1.2265	1.2212	1.2160	1.2107	1.2055	1.2004	1.1952	1.1901	1.1850	1.1800
0.12	1.1750	1.1700	1.1650	1.1601	1.1552	1.1503	1.1455	1.1407	1.1359	1.1311
0.13	1.1264	1.1217	1.1170	1.1123	1.1077	1.1031	1.0985	1.0939	1.0893	1.0848
0.14	1.0803	1.0758	1.0714	1.0669	1.0625	1.0581	1.0537	1.0494	1.0450	1.0407
0.15	1.0364	1.0322	1.0279	1.0237	1.0194	1.0152	1.0110	1.0069	1.0027	0.9986
0.16	0.9945	0.9904	0.9863	0.9822	0.9782	0.9741	0.9701	0.9661	0.9621	0.9581
0.17	0.9542	0.9502	0.9463	0.9424	0.9385	0.9346	0.9307	0.9269	0.9230	0.9192
0.18	0.9154	0.9116	0.9078	0.9040	0.9002	0.8965	0.8927	0.8890	0.8853	0.8816
0.19	0.8779	0.8742	0.8705	0.8669	0.8633	0.8596	0.8560	0.8524	0.8488	0.8452
0.20	0.8416	0.8381	0.8345	0.8310	0.8274	0.8239	0.8204	0.8169	0.8134	0.8099
0.21	0.8064	0.8030	0.7995	0.7961	0.7926	0.7892	0.7858	0.7824	0.7790	0.7756
0.22	0.7722	0.7688	0.7655	0.7621	0.7588	0.7554	0.7521	0.7488	0.7454	0.7421
0.23	0.7388	0.7356	0.7323	0.7290	0.7257	0.7225	0.7192	0.7160	0.7128	0.7095
0.24	0.7063	0.7031	0.6999	0.6967	0.6935	0.6903	0.6871	0.6840	0.6808	0.6776
0.25	0.6745	0.6713	0.6682	0.6651	0.6620	0.6588	0.6557	0.6526	0.6495	0.6464
0.26	0.6433	0.6403	0.6372	0.6341	0.6311	0.6280	0.6250	0.6219	0.6189	0.6158
0.27	0.6128	0.6098	0.6068	0.6038	0.6008	0.5978	0.5948	0.5918	0.5888	0.5858
0.28	0.5828	0.5799	0.5769	0.5740	0.5710	0.5681	0.5651	0.5622	0.5592	0.5563
0.29	0.5534	0.5505	0.5476	0.5446	0.5417	0.5388	0.5359	0.5330	0.5302	0.5273
0.30	0.5244	0.5215	0.5187	0.5158	0.5129	0.5101	0.5072	0.5044	0.5015	0.4987
0.31	0.4959	0.4930	0.4902	0.4874	0.4845	0.4817	0.4789	0.4761	0.4733	0.4705
0.32	0.4677	0.4649	0.4621	0.4593	0.4565	0.4538	0.4510	0.4482	0.4454	0.4427
0.33	0.4399	0.4372	0.4344	0.4316	0.4289	0.4261	0.4234	0.4207	0.4179	0.4152
0.34	0.4125	0.4097	0.4070	0.4043	0.4016	0.3989	0.3961	0.3934	0.3907	0.3880
0.35	0.3853	0.3826	0.3799	0.3772	0.3745	0.3719	0.3692	0.3665	0.3638	0.3611
0.36	0.3585	0.3558	0.3531	0.3505	0.3478	0.3451	0.3425	0.3398	0.3372	0.3345
0.37	0.3319	0.3292	0.3266	0.3239	0.3213	0.3186	0.3160	0.3134	0.3107	0.3081
0.38	0.3055	0.3029	0.3002	0.2976	0.2950	0.2924	0.2898	0.2871	0.2845	0.2819
0.39	0.2793	0.2767	0.2741	0.2715	0.2689	0.2663	0.2637	0.2611	0.2585	0.2559
0.40	0.2533	0.2508	0.2482	0.2456	0.2430	0.2404	0.2378	0.2353	0.2327	0.2301
0.41	0.2275	0.2250	0.2224	0.2198	0.2173	0.2147	0.2121	0.2096	0.2070	0.2045
0.42	0.2019	0.1993	0.1968	0.1942	0.1917	0.1891	0.1866	0.1840	0.1815	0.1789
0.43	0.1764	0.1738	0.1713	0.1687	0.1662	0.1637	0.1611	0.1586	0.1560	0.1535
0.44	0.1510	0.1484	0.1459	0.1434	0.1408	0.1383	0.1358	0.1332	0.1307	0.1282
0.45	0.1257	0.1231	0.1206	0.1181	0.1156	0.1130	0.1105	0.1080	0.1055	0.1030
0.46	0.1004	0.0979	0.0954	0.0929	0.0904	0.0878	0.0853	0.0828	0.0803	0.0778
0.47	0.0753	0.0728	0.0702	0.0677	0.0652	0.0627	0.0602	0.0577	0.0552	0.0527
0.48	0.0502	0.0476	0.0451	0.0426	0.0401	0.0376	0.0351	0.0326	0.0301	0.0276
0.49	0.0251	0.0226	0.0201	0.0175	0.0150	0.0125	0.0100	0.0075	0.0050	0.0025

3   Loi du χ^2 : quantiles

Pour un degré de liberté n entre 1 et 30 et pour certaine valeur de α, la table ci-dessous renvoie la valeur $F^{-1}(1-\alpha)$ de la fonction quantile F^{-1} de la loi du χ^2 à n degrés de liberté au point $1-\alpha$.
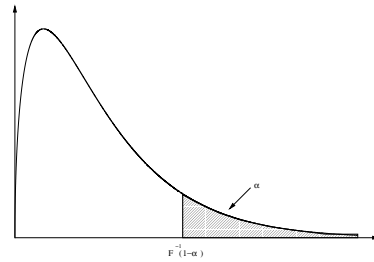

α n	0.99	0.975	0.95	0.9	0.1	0.05	0.025	0.01	0.001
1	0.0002	0.001	0.0039	0.0158	2.71	3.84	5.02	6.63	10.83
2	0.02	0.05	0.1	0.21	4.61	5.99	7.38	9.21	13.82
3	0.11	0.22	0.35	0.58	6.25	7.81	9.35	11.34	16.27
4	0.3	0.48	0.71	1.06	7.78	9.49	11.14	13.28	18.47
5	0.55	0.83	1.15	1.61	9.24	11.07	12.83	15.09	20.52
6	0.87	1.24	1.64	2.2	10.64	12.59	14.45	16.81	22.46
7	1.24	1.69	2.17	2.83	12.02	14.07	16.01	18.48	24.32
8	1.65	2.18	2.73	3.49	13.36	15.51	17.53	20.09	26.12
9	2.09	2.7	3.33	4.17	14.68	16.92	19.02	21.67	27.88
10	2.56	3.25	3.94	4.87	15.99	18.31	20.48	23.21	29.59
11	3.05	3.82	4.57	5.58	17.28	19.68	21.92	24.72	31.26
12	3.57	4.4	5.23	6.3	18.55	21.03	23.34	26.22	32.91
13	4.11	5.01	5.89	7.04	19.81	22.36	24.74	27.69	34.53
14	4.66	5.63	6.57	7.79	21.06	23.68	26.12	29.14	36.12
15	5.23	6.26	7.26	8.55	22.31	25.	27.49	30.58	37.7
16	5.81	6.91	7.96	9.31	23.54	26.3	28.85	32.	39.25
17	6.41	7.56	8.67	10.09	24.77	27.59	30.19	33.41	40.79
18	7.01	8.23	9.39	10.86	25.99	28.87	31.53	34.81	42.31
19	7.63	8.91	10.12	11.65	27.2	30.14	32.85	36.19	43.82
20	8.26	9.59	10.85	12.44	28.41	31.41	34.17	37.57	45.31
21	8.9	10.28	11.59	13.24	29.62	32.67	35.48	38.93	46.8
22	9.54	10.98	12.34	14.04	30.81	33.92	36.78	40.29	48.27
23	10.2	11.69	13.09	14.85	32.01	35.17	38.08	41.64	49.73
24	10.86	12.4	13.85	15.66	33.2	36.42	39.36	42.98	51.18
25	11.52	13.12	14.61	16.47	34.38	37.65	40.65	44.31	52.62
26	12.2	13.84	15.38	17.29	35.56	38.89	41.92	45.64	54.05
27	12.88	14.57	16.15	18.11	36.74	40.11	43.19	46.96	55.48
28	13.56	15.31	16.93	18.94	37.92	41.34	44.46	48.28	56.89
29	14.26	16.05	17.71	19.77	39.09	42.56	45.72	49.59	58.3
30	14.95	16.79	18.49	20.6	40.26	43.77	46.98	50.89	59.7

Lorsque le nombre de degrés de liberté n est supérieur à 30, on peut utiliser l'approximation suivante : $\sqrt{2\chi^2(p)} - \sqrt{2p-1}$ suit approximativement la loi normale centrée réduite.

4 Loi de Student : quantiles

Pour un certain degré de liberté n et pour certaine valeur de α, la table ci-dessous renvoie la valeur $F^{-1}(1-\alpha)$ de la fonction quantile F^{-1} de la loi de Student à n degrés de liberté au point $1-\alpha$.
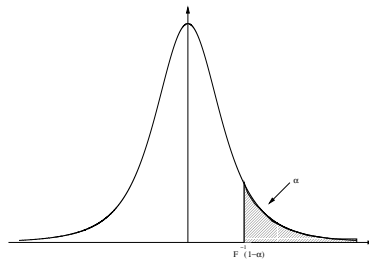
n \ α	0.45	0.3	0.2	0.1	0.05	0.025	0.01	0.001
1	0.158	0.727	1.376	3.078	6.314	12.706	31.821	318.309
2	0.142	0.617	1.061	1.886	2.920	4.303	6.965	22.327
3	0.137	0.584	0.978	1.638	2.353	3.182	4.541	10.215
4	0.134	0.569	0.941	1.533	2.132	2.776	3.747	7.173
5	0.132	0.559	0.920	1.476	2.015	2.571	3.365	5.893
6	0.131	0.553	0.906	1.440	1.943	2.447	3.143	5.208
7	0.130	0.549	0.896	1.415	1.895	2.365	2.998	4.785
8	0.130	0.546	0.889	1.397	1.860	2.306	2.896	4.501
9	0.129	0.543	0.883	1.383	1.833	2.262	2.821	4.297
10	0.129	0.542	0.879	1.372	1.812	2.228	2.764	4.144
11	0.129	0.540	0.876	1.363	1.796	2.201	2.718	4.025
12	0.128	0.539	0.873	1.356	1.782	2.179	2.681	3.930
13	0.128	0.538	0.870	1.350	1.771	2.160	2.650	3.852
14	0.128	0.537	0.868	1.345	1.761	2.145	2.624	3.787
15	0.128	0.536	0.866	1.341	1.753	2.131	2.602	3.733
16	0.128	0.535	0.865	1.337	1.746	2.120	2.583	3.686
17	0.128	0.534	0.863	1.333	1.740	2.110	2.567	3.646
18	0.127	0.534	0.862	1.330	1.734	2.101	2.552	3.610
19	0.127	0.533	0.861	1.328	1.729	2.093	2.539	3.579
20	0.127	0.533	0.860	1.325	1.725	2.086	2.528	3.552
21	0.127	0.532	0.859	1.323	1.721	2.080	2.518	3.527
22	0.127	0.532	0.858	1.321	1.717	2.074	2.508	3.505
23	0.127	0.532	0.858	1.319	1.714	2.069	2.500	3.485
24	0.127	0.531	0.857	1.318	1.711	2.064	2.492	3.467
25	0.127	0.531	0.856	1.316	1.708	2.060	2.485	3.450
26	0.127	0.531	0.856	1.315	1.706	2.056	2.479	3.435
27	0.127	0.531	0.855	1.314	1.703	2.052	2.473	3.421
28	0.127	0.530	0.855	1.313	1.701	2.048	2.467	3.408
29	0.127	0.530	0.854	1.311	1.699	2.045	2.462	3.396
30	0.127	0.530	0.854	1.310	1.697	2.042	2.457	3.385
40	0.126	0.529	0.851	1.303	1.684	2.021	2.423	3.307
80	0.126	0.526	0.846	1.292	1.664	1.990	2.374	3.195
120	0.126	0.526	0.845	1.289	1.658	1.980	2.358	3.160
∞	0.126	0.524	0.842	1.282	1.645	1.96	2.327	3.091