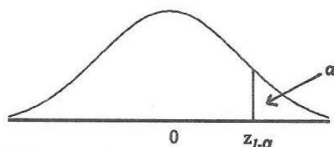


# TABULKY KRITICKÝCH HODNOT

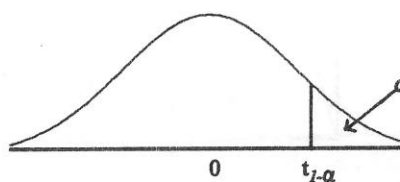
**Tabulka kritických hodnot normovaného normálního rozdělení**  
(Chajdiak J., Rublíková E., Gudába M.: Štatistické metódy v praxi. Statis, Bratislava 1997)



z	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.0	0.50000	0.50399	0.50789	0.51197	0.51595	0.51994	0.52392	0.52790	0.53188	0.53586
0.1	0.53983	0.54380	0.54776	0.55172	0.55567	0.55962	0.56356	0.56749	0.57142	0.57535
0.2	0.57926	0.58317	0.58706	0.59095	0.59483	0.59871	0.60257	0.60642	0.61026	0.61409
0.3	0.61791	0.62172	0.62552	0.62930	0.63307	0.63683	0.64058	0.64431	0.64803	0.65173
0.4	0.65542	0.65910	0.66276	0.66640	0.67003	0.67364	0.67724	0.68082	0.68439	0.68793
0.5	0.69146	0.69497	0.69847	0.70194	0.70540	0.70884	0.71226	0.71566	0.71904	0.72240
0.6	0.72575	0.72907	0.73237	0.73565	0.73891	0.74215	0.74537	0.74857	0.75175	0.75490
0.7	0.75804	0.76115	0.76424	0.76730	0.77035	0.77337	0.77637	0.77935	0.78230	0.78524
0.8	0.78814	0.79103	0.79389	0.79673	0.79955	0.80234	0.80511	0.80785	0.81057	0.81327
0.9	0.81594	0.81859	0.82121	0.82381	0.82639	0.82894	0.83147	0.83398	0.83646	0.83891
1.0	0.84134	0.84375	0.84614	0.84850	0.85083	0.85314	0.85543	0.85769	0.85993	0.86214
1.1	0.86433	0.86650	0.86864	0.87076	0.87286	0.87493	0.87698	0.87900	0.88100	0.88298
1.2	0.88493	0.88688	0.88877	0.89065	0.89251	0.89435	0.89617	0.89796	0.89973	0.90147
1.3	0.90320	0.90490	0.90658	0.90824	0.90988	0.91149	0.91309	0.91466	0.91621	0.91774
1.4	0.91924	0.92073	0.92220	0.92364	0.92507	0.92647	0.92786	0.92922	0.93056	0.93189
1.5	0.93319	0.93448	0.93574	0.93699	0.93822	0.93943	0.94062	0.94179	0.94295	0.94408
1.6	0.94520	0.94630	0.94738	0.94845	0.94950	0.95053	0.95154	0.95254	0.95352	0.95449
1.7	0.95543	0.95637	0.95738	0.95838	0.95937	0.95994	0.96080	0.96164	0.96246	0.96327
1.8	0.96407	0.96485	0.96562	0.96638	0.96712	0.96784	0.96856	0.96926	0.96995	0.97062
1.9	0.97128	0.97193	0.97257	0.97320	0.97381	0.97441	0.97500	0.97558	0.97615	0.97670
2.0	0.97725	0.97778	0.97831	0.97882	0.97932	0.97982	0.98030	0.98077	0.98124	0.98169
2.1	0.98214	0.98257	0.98300	0.98341	0.98382	0.98422	0.98461	0.98500	0.98537	0.98574
2.2	0.98610	0.98645	0.98679	0.98713	0.98745	0.98778	0.98809	0.98840	0.98870	0.98899
2.3	0.98928	0.98956	0.98983	0.99010	0.99036	0.99061	0.99086	0.99110	0.99134	0.99158
2.4	0.99180	0.99202	0.99224	0.99245	0.99266	0.99286	0.99305	0.99324	0.99343	0.99361
2.5	0.99379	0.99396	0.99413	0.99430	0.99446	0.99461	0.99477	0.99492	0.99506	0.99520
2.6	0.99534	0.99547	0.99560	0.99573	0.99585	0.99598	0.99609	0.99621	0.99632	0.99643
2.7	0.99635	0.99664	0.99674	0.99683	0.99693	0.99702	0.99711	0.99720	0.99728	0.99736
2.8	0.99774	0.99753	0.99760	0.99767	0.99774	0.99781	0.99788	0.99795	0.99801	0.99861
2.9	0.99813	0.99819	0.99825	0.99831	0.99836	0.99841	0.99846	0.99851	0.99856	0.99861
3.0	0.99865	0.99869	0.99874	0.99870	0.99882	0.99886	0.99889	0.99893	0.99896	0.99900
3.5	0.99977									
4.0	0.99997									
4.5	0.999997									
5.0	0.9999997									
6.0	0.999999999									

### Tabulka kritických hodnot Studentova t rozdělení

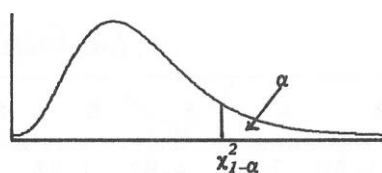
(Chajdiak J., Rublíková E., Gudába M.: Štatistické metódy v praxi. Statis, Bratislava 1997)



Stupne voľnosti	$t_{0.75}$	$t_{0.90}$	$t_{0.95}$	$t_{0.975}$	$t_{0.99}$	$t_{0.995}$	$t_{0.9975}$	$t_{0.999}$	$t_{0.9995}$
1	1.000	3.078	6.314	12.706	31.821	63.657	127.320	318.309	636.619
2	0.816	1.886	2.920	4.303	6.965	9.925	14.089	22.327	31.599
3	0.765	1.638	2.353	3.182	4.541	5.841	7.453	10.214	12.924
4	0.741	1.533	2.132	2.776	3.747	4.604	5.598	7.173	8.610
5	0.727	1.476	2.015	2.571	3.365	4.032	4.773	5.893	6.869
6	0.718	1.440	1.943	2.447	3.143	3.707	4.317	5.208	5.959
7	0.711	1.415	1.895	2.365	2.998	3.499	4.029	4.785	5.408
8	0.706	1.397	1.860	2.306	2.896	3.355	3.832	4.501	5.041
9	0.703	1.383	1.833	2.262	2.821	3.250	3.690	4.297	4.781
10	0.700	1.372	1.812	2.228	2.764	3.169	3.581	4.144	4.587
11	0.697	1.363	1.796	2.201	2.718	3.106	3.497	4.025	4.437
12	0.695	1.356	1.782	2.179	2.681	3.055	3.428	3.930	4.318
13	0.694	1.350	1.771	2.160	2.650	3.012	3.372	3.852	4.221
14	0.692	1.345	1.761	2.145	2.624	2.977	3.326	3.787	4.140
15	0.691	1.341	1.753	2.131	2.602	2.947	3.286	3.732	4.072
16	0.690	1.337	1.746	2.120	2.583	2.921	3.252	3.686	4.015
17	0.689	1.333	1.740	2.110	2.567	2.898	3.222	3.646	3.965
18	0.688	1.330	1.734	2.101	2.552	2.878	3.197	3.610	3.922
19	0.688	1.328	1.729	2.093	2.539	2.861	3.174	3.579	3.883
20	0.687	1.325	1.725	2.086	2.528	2.845	3.153	3.552	3.850
21	0.686	1.323	1.721	2.080	2.518	2.831	3.135	3.527	3.819
22	0.686	1.321	1.717	2.074	2.508	2.819	3.119	3.505	3.792
23	0.685	1.319	1.714	2.069	2.500	2.807	3.104	3.485	3.768
24	0.685	1.318	1.711	2.064	2.492	2.797	3.090	3.467	3.745
25	0.684	1.316	1.708	2.060	2.485	2.787	3.078	3.451	3.725
26	0.684	1.315	1.706	2.056	2.479	2.779	3.070	3.435	3.707
27	0.684	1.314	1.703	2.052	2.473	2.771	3.056	3.421	3.690
28	0.683	1.313	1.701	2.048	2.467	2.763	3.047	3.408	3.674
29	0.683	1.311	1.699	2.045	2.462	2.756	3.038	3.396	3.659
30	0.683	1.310	1.697	2.042	2.457	2.750	3.030	3.385	3.650
40	0.681	1.303	1.684	2.021	2.423	2.704	2.971	3.307	3.551
60	0.679	1.296	1.671	2.000	2.390	2.660	2.915	3.232	3.460
120	0.676	1.289	1.658	1.980	2.358	2.617	2.860	3.160	3.373
$\infty$	0.674	1.282	1.645	1.960	2.326	2.576	2.807	3.098	3.300

## Tabulka kritických hodnot rozdělení $\chi^2$

(Chajdiak J., Rublíková E., Gudába M.: Štatistické metódy v praxi. Statis, Bratislava 1997.)



Stupne voľnosti	$\chi^2_{0.005}$	$\chi^2_{0.01}$	$\chi^2_{0.025}$	$\chi^2_{0.05}$	$\chi^2_{0.10}$	$\chi^2_{0.90}$	$\chi^2_{0.95}$	$\chi^2_{0.975}$	$\chi^2_{0.99}$	$\chi^2_{0.995}$
1	0.00439	0.00157	0.00982	0.00393	0.01579	2.706	3.841	5.024	6.635	7.879
2	0.0100	0.0201	0.0506	0.1026	0.2107	4.605	5.991	7.378	9.210	10.60
3	0.0717	0.1148	0.2158	0.3518	0.5844	6.251	7.815	9.348	11.34	12.84
4	0.2070	0.2971	0.4844	0.7107	1.064	7.779	9.488	11.14	13.28	14.86
5	0.4117	0.5543	0.8312	1.145	1.610	9.236	11.07	12.83	15.09	16.75
6	0.6757	0.8721	1.237	1.635	2.204	10.64	12.59	14.45	16.81	18.55
7	0.9893	1.239	1.690	2.167	2.833	12.02	14.07	16.01	18.48	20.28
8	1.344	1.646	2.180	2.733	3.490	13.36	15.51	17.53	20.09	21.95
9	1.735	2.088	2.700	3.325	4.168	14.68	16.92	19.02	21.67	23.59
10	2.156	2.558	3.247	3.940	4.865	15.99	18.31	20.48	23.21	25.19
11	2.603	3.053	3.816	4.575	5.578	17.28	19.68	21.92	24.72	26.76
12	3.074	3.571	4.404	5.226	6.304	18.55	21.03	23.34	26.22	28.30
13	3.565	4.107	5.009	5.892	7.042	19.81	22.36	24.74	27.69	29.82
14	4.075	4.660	5.629	6.571	7.790	21.06	23.68	26.12	29.14	31.32
15	4.601	5.229	6.262	7.261	8.547	22.31	25.00	27.49	30.58	32.80
16	5.142	5.812	6.908	7.962	9.312	23.54	26.30	28.85	32.00	34.27
17	5.697	6.408	7.564	8.672	10.09	24.77	27.59	30.19	33.41	35.72
18	6.265	7.015	8.231	9.390	10.86	25.99	28.87	31.53	34.81	37.16
19	6.844	7.633	8.907	10.12	11.65	27.20	30.14	32.85	36.19	38.58
20	7.434	8.260	9.591	10.85	12.44	28.41	31.41	34.17	37.57	40.00
21	8.034	8.897	10.28	11.59	13.24	29.62	32.67	35.48	38.93	41.40
22	8.643	9.542	10.98	12.34	14.04	30.81	33.92	36.78	40.29	42.80
23	9.260	10.20	11.69	13.09	14.85	32.01	35.17	38.08	41.64	44.18
24	9.886	10.86	12.40	13.85	15.66	33.20	36.42	39.36	42.98	45.56
25	10.52	11.52	13.12	14.61	16.47	34.38	37.65	40.65	44.31	46.93
26	11.16	12.20	13.84	15.38	17.29	35.56	38.89	41.92	45.64	48.29
27	11.81	12.88	14.57	16.15	18.11	36.74	40.11	43.19	46.96	49.65
28	12.46	13.56	15.31	16.93	18.94	37.92	41.34	44.46	48.28	50.99
29	13.12	14.26	16.05	17.71	19.77	39.09	42.56	45.72	49.59	52.34
30	13.79	14.95	16.79	18.49	20.60	40.26	43.77	46.98	50.89	53.67
40	20.71	22.16	24.43	26.51	29.05	51.81	55.76	59.34	63.69	66.77
50	27.99	29.71	32.36	34.76	37.69	63.17	67.50	71.42	76.15	79.49
60	35.53	37.48	40.48	43.19	46.46	74.40	79.08	83.30	88.38	91.95
70	43.28	45.44	48.76	51.74	55.33	85.53	90.53	95.02	100.43	104.21
80	51.17	53.54	57.15	60.39	64.28	96.58	101.88	106.63	112.33	116.32
120	86.92	86.92	91.57	95.70	100.62	140.23	146.57	152.21	158.95	163.65

### Kritické hodnoty $T_{\text{Horn}}$ pro Hornův postup

$1 - \alpha$	0.9	0.95	0.975	0.99	0.995
n					
4	0.477	0.555	0.738	1.040	1.331
5	0.869	1.370	2.094	3.715	5.805
6	0.531	0.759	1.035	1.505	1.968
7	0.451	0.550	0.720	0.978	1.211
8	0.393	0.469	0.564	0.741	0.890
9	0.484	0.688	0.915	1.265	1.575
10	0.400	0.523	0.668	0.878	1.051
11	0.363	0.452	0.545	0.714	0.859
12	0.344	0.423	0.483	0.593	0.697
13	0.389	0.497	0.608	0.792	0.945
14	0.348	0.437	0.525	0.661	0.776
15	0.318	0.399	0.466	0.586	0.685
16	0.299	0.374	0.435	0.507	0.591
17	0.331	0.421	0.502	0.637	0.774
18	0.300	0.380	0.451	0.555	0.650
19	0.288	0.361	0.423	0.502	0.575
20	0.266	0.337	0.397	0.464	0.519

### Kritické hodnoty Dean-Dixonova testu

n	$\alpha = 0,05$	$\alpha = 0,01$	n	$\alpha = 0,05$	$\alpha = 0,01$
3	0,941	0,988	12	0,376	0,482
4	0,765	0,889	13	0,361	0,465
5	0,642	0,780	14	0,349	0,450
6	0,560	0,698	15	0,338	0,438
7	0,507	0,637	16	0,329	0,426
8	0,468	0,590	17	0,320	0,416
9	0,437	0,555	18	0,313	0,407
10	0,412	0,527	19	0,306	0,398
11	0,392	0,502	20	0,300	0,391

### Kritické hodnoty Grubsova testu

n	<u>A</u> , $\alpha = 0,05$	<u>B</u> , $\alpha = 0,05$	n	<u>A</u> , $\alpha = 0,05$	<u>B</u> , $\alpha = 0,05$
3	1,412	2,00	12	2,387	3,91
4	1,689	2,43	13	2,426	4,00
5	1,869	2,75	14	2,461	
6	1,996	3,01	15	2,493	4,17
7	2,093	3,22	16	2,253	
8	2,172	3,40	17	2,551	
9	2,237	3,55	18	2,557	
10	2,294	3,68	19	2,600	
11	2,343		20	2,623	4,49

**Kritické hodnoty  $w(n, 0,05)$  pro jednovýběrový a párový Wilcoxonův test**

n	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
w(n)	0	2	3	5	8	10	13	17	21	25	29	34	40	46	52

**Kritické hodnoty  $w(N_1, N_2; 0,05)$  pro dvouvýběrový Wilcoxonův test**

$N_1$	$N_2$	w	$N_1$	$N_2$	w
3	3	-	5	6	3
3	4	-	5	7	5
3	5	0	5	8	6
3	6	1	5	9	7
3	7	1	6	6	5
3	8	2	6	7	6
3	9	2	6	8	8
4	4	0	6	9	10
4	5	1	7	7	8
4	6	2	7	8	10
4	7	3	7	9	12
4	8	4	8	8	13
4	9	4	8	9	15
5	5	2	9	9	17

### Tabulka F rozdělení pro $\alpha=0,05$

(Eckschlager K., Horsák I., Kodejš Z.: Vyhodnocování analytických výsledků a metod. SNTL/ALFA, Praha 1980.)

$\nu_2$	$\nu_1$									$\nu_1$									
	1	2	3	4	5	6	7	8	9	10	12	15	20	24	30	40	60	120	$\infty$
1	161,450	199,500	215,710	224,580	230,160	233,990	236,770	238,880	240,540	241,88	243,91	245,95	248,01	249,05	250,09	251,14	252,20	253,25	254,32
2	18,513	19,000	19,164	19,247	19,296	19,330	19,353	19,371	19,385	19,396	19,413	19,429	19,446	19,454	19,462	19,471	19,479	19,487	19,496
3	10,128	9,552	9,277	9,117	9,014	8,941	8,887	8,845	8,812	8,786	8,745	8,703	8,660	8,639	8,617	8,594	8,572	8,549	8,527
4	7,709	6,944	6,591	6,388	6,256	6,163	6,094	6,041	5,999	5,964	5,912	5,858	5,803	5,774	5,746	5,717	5,688	5,658	5,628
5	6,608	5,786	5,410	5,192	5,050	4,950	4,876	4,818	4,773	4,735	4,678	4,619	4,558	4,527	4,496	4,464	4,431	4,398	4,365
6	5,987	5,143	4,757	4,534	4,387	4,284	4,207	4,147	4,099	4,060	4,000	3,938	3,874	3,842	3,808	3,774	3,740	3,705	3,669
7	5,591	4,737	4,347	4,120	3,972	3,866	3,787	3,726	3,677	3,637	3,575	3,511	3,445	3,411	3,376	3,340	3,304	3,267	3,230
8	5,318	4,459	4,066	3,838	3,688	3,581	3,501	3,438	3,388	3,347	3,284	3,218	3,150	3,115	3,079	3,043	3,005	2,967	2,928
9	5,117	4,257	3,863	3,633	3,482	3,374	3,293	3,230	3,179	3,137	3,073	3,006	2,937	2,901	2,864	2,826	2,787	2,748	2,707
10	4,965	4,103	3,708	3,478	3,326	3,217	3,136	3,072	3,020	2,978	2,913	2,845	2,774	2,737	2,700	2,661	2,621	2,580	2,538
11	4,844	3,982	3,587	3,357	3,204	3,095	3,012	2,948	2,896	2,854	2,788	2,719	2,646	2,609	2,571	2,531	2,490	2,448	2,405
12	4,747	3,885	3,490	3,259	3,106	2,996	2,913	2,849	2,796	2,753	2,687	2,617	2,544	2,506	2,466	2,426	2,384	2,341	2,296
13	4,667	3,806	3,411	3,179	3,025	2,915	2,832	2,767	2,714	2,671	2,604	2,533	2,459	2,420	2,380	2,339	2,297	2,252	2,206
14	4,600	3,739	3,344	3,112	2,958	2,848	2,764	2,699	2,646	2,602	2,534	2,463	2,388	2,349	2,308	2,266	2,223	2,178	2,131
15	4,543	3,682	3,287	3,056	2,901	2,791	2,707	2,641	2,588	2,544	2,475	2,404	2,328	2,288	2,247	2,204	2,160	2,114	2,066
16	4,494	3,634	3,239	3,007	2,852	2,741	2,657	2,591	2,538	2,494	2,425	2,352	2,276	2,235	2,194	2,151	2,106	2,059	2,010
17	4,451	3,592	3,197	2,965	2,810	2,699	2,614	2,548	2,494	2,450	2,381	2,308	2,230	2,190	2,148	2,104	2,058	2,011	1,960
18	4,414	3,555	3,160	2,928	2,773	2,661	2,577	2,510	2,456	2,412	2,342	2,269	2,191	2,150	2,107	2,063	2,017	1,968	1,917
19	4,381	3,522	3,127	2,895	2,740	2,628	2,544	2,477	2,423	2,378	2,308	2,234	2,156	2,114	2,071	2,026	1,980	1,930	1,878
20	4,351	3,493	3,098	2,866	2,711	2,599	2,514	2,447	2,393	2,348	2,278	2,203	2,124	2,083	2,039	1,994	1,946	1,896	1,843
21	4,325	3,467	3,073	2,840	2,685	2,573	2,488	2,421	2,366	2,321	2,250	2,176	2,096	2,054	2,010	1,965	1,917	1,866	1,812
22	4,301	3,443	3,049	2,817	2,661	2,549	2,464	2,397	2,342	2,297	2,226	2,151	2,071	2,028	1,984	1,938	1,890	1,838	1,783
23	4,279	3,422	3,028	2,796	2,640	2,528	2,442	2,375	2,320	2,275	2,204	2,128	2,048	2,005	1,961	1,914	1,865	1,813	1,757
24	4,260	3,403	3,009	2,776	2,621	2,508	2,423	2,355	2,300	2,255	2,183	2,108	2,027	1,984	1,939	1,892	1,842	1,790	1,733
25	4,242	3,385	2,991	2,759	2,603	2,490	2,405	2,337	2,282	2,237	2,165	2,089	2,008	1,964	1,919	1,872	1,822	1,768	1,711
26	4,225	3,369	2,975	2,743	2,587	2,474	2,388	2,321	2,266	2,220	2,148	2,072	1,990	1,946	1,901	1,853	1,803	1,749	1,691
27	4,210	3,354	2,960	2,728	2,572	2,459	2,373	2,305	2,250	2,204	2,132	2,056	1,974	1,930	1,884	1,836	1,785	1,731	1,672
28	4,196	3,340	2,947	2,714	2,558	2,445	2,359	2,291	2,236	2,190	2,118	2,041	1,959	1,915	1,869	1,820	1,769	1,714	1,654
29	4,183	3,328	2,934	2,701	2,545	2,432	2,346	2,278	2,223	2,177	2,105	2,028	1,945	1,901	1,854	1,806	1,754	1,698	1,638
30	4,171	3,316	2,922	2,690	2,534	2,421	2,334	2,266	2,211	2,165	2,092	2,015	1,932	1,887	1,841	1,792	1,740	1,684	1,622
40	4,085	3,232	2,839	2,606	2,450	2,336	2,249	2,180	2,124	2,077	2,004	1,925	1,839	1,793	1,744	1,693	1,637	1,577	1,509
60	4,001	3,150	2,758	2,525	2,368	2,254	2,167	2,097	2,040	1,993	1,917	1,836	1,748	1,700	1,649	1,594	1,534	1,467	1,389
120	3,920	3,072	2,680	2,447	2,290	2,175	2,087	2,016	1,959	1,911	1,834	1,751	1,659	1,608	1,554	1,495	1,429	1,352	1,254
$\infty$	3,812	2,996	2,605	2,372	2,214	2,099	2,010	1,938	1,880	1,831	1,752	1,666	1,571	1,517	1,459	1,394	1,318	1,221	1,000