

**t Distribution: Critical Values of t**

Degrees of freedom	Two-tailed test: One-tailed test:	Significance level						
		10%	5%	2%	1%	0.5%	0.2%	0.1%
1		6.314	12.706	31.821	63.657	318.309	636.619	
2		2.920	4.303	6.965	9.925	22.327	31.599	
3		2.353	3.182	4.541	5.841	10.215	12.924	
4		2.132	2.776	3.747	4.604	7.173	8.610	
5		2.015	2.571	3.365	4.032	5.893	6.869	
6		1.943	2.447	3.143	3.707	5.208	5.959	
7		1.894	2.365	2.998	3.499	4.785	5.408	
8		1.860	2.306	2.896	3.355	4.501	5.041	
9		1.833	2.262	2.821	3.250	4.297	4.781	
10		1.812	2.228	2.764	3.169	4.144	4.587	
11		1.796	2.201	2.718	3.106	4.025	4.437	
12		1.782	2.179	2.681	3.055	3.930	4.318	
13		1.771	2.160	2.650	3.012	3.852	4.221	
14		1.761	2.145	2.624	2.977	3.787	4.140	
15		1.753	2.131	2.602	2.947	3.733	4.073	
16		1.746	2.120	2.583	2.921	3.686	4.015	
17		1.740	2.110	2.567	2.898	3.646	3.965	
18		1.734	2.101	2.552	2.878	3.610	3.922	
19		1.729	2.093	2.539	2.861	3.579	3.883	
20		1.725	2.086	2.528	2.845	3.552	3.850	
21		1.721	2.080	2.518	2.831	3.527	3.819	
22		1.717	2.074	2.508	2.819	3.505	3.792	
23		1.714	2.069	2.500	2.807	3.485	3.768	
24		1.711	2.064	2.492	2.797	3.467	3.745	
25		1.708	2.060	2.485	2.787	3.450	3.725	
26		1.706	2.056	2.479	2.779	3.435	3.707	
27		1.703	2.052	2.473	2.771	3.421	3.690	
28		1.701	2.048	2.467	2.763	3.408	3.674	
29		1.699	2.045	2.462	2.756	3.396	3.659	
30		1.697	2.042	2.457	2.750	3.385	3.646	
32		1.694	2.037	2.449	2.738	3.365	3.622	
34		1.691	2.032	2.441	2.728	3.348	3.601	
36		1.688	2.028	2.434	2.719	3.333	3.582	
38		1.686	2.024	2.429	2.712	3.319	3.566	
40		1.684	2.021	2.423	2.704	3.307	3.551	
42		1.682	2.018	2.418	2.698	3.296	3.538	
44		1.680	2.015	2.414	2.692	3.286	3.526	
46		1.679	2.013	2.410	2.687	3.277	3.515	
48		1.677	2.011	2.407	2.682	3.269	3.505	
50		1.676	2.009	2.403	2.678	3.261	3.496	
60		1.671	2.000	2.390	2.660	3.232	3.460	
70		1.667	1.994	2.381	2.648	3.211	3.435	
80		1.664	1.990	2.374	2.639	3.195	3.416	
90		1.662	1.987	2.368	2.632	3.183	3.402	
100		1.660	1.984	2.364	2.626	3.174	3.390	
120		1.658	1.980	2.358	2.617	3.160	3.373	
150		1.655	1.976	2.351	2.609	3.145	3.357	
200		1.653	1.972	2.345	2.601	3.131	3.340	
300		1.650	1.968	2.339	2.592	3.118	3.323	
400		1.649	1.966	2.336	2.588	3.111	3.315	
500		1.648	1.965	2.334	2.586	3.107	3.310	
600		1.647	1.964	2.333	2.584	3.104	3.307	
$\infty$		1.645	1.960	2.326	2.576	3.090	3.291	