

Helpful formulas:

$t = \frac{\bar{x} - \mu}{\sqrt{\frac{s^2}{n}}}$	$\bar{x} \pm E$ where $E = t_{\alpha/2} \sqrt{\frac{s^2}{n}}$
$z = \frac{\hat{p} - p}{\sqrt{\frac{p(1-p)}{n}}}$	$\hat{p} \pm E$ where $E = z_{\alpha/2} \sqrt{\frac{\hat{p}(1-\hat{p})}{n}}$
$z = \frac{(\hat{p}_1 - \hat{p}_2) - (p_1 - p_2)}{\sqrt{\bar{p}(1-\bar{p})\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$ where $\bar{p} = \frac{x_1 + x_2}{n_1 + n_2}$	$(\hat{p}_1 - \hat{p}_2) \pm E$ where $E = z_{\alpha/2} \sqrt{\frac{\hat{p}_1(1-\hat{p}_1)}{n_1} + \frac{\hat{p}_2(1-\hat{p}_2)}{n_2}}$
$t = \frac{(\bar{x}_1 - \bar{x}_2) - (\mu_1 - \mu_2)}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}}$	$(\bar{x}_1 - \bar{x}_2) \pm E$ where $E = t_{\alpha/2} \sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}$
$t = \frac{r}{\sqrt{\frac{1-r^2}{n-2}}}$	$\hat{y} = \hat{\beta}_0 + \hat{\beta}_1 x$

Critical  $t$  values

( $z$  values are on the last row, indicated by  $\infty$  degrees of freedom)

		Area in one tail					
		10%	5%	2.5%	1%	0.5%	0.1%
		Area in two tails					
deg. freedom	20%	10%	5%	2%	1%	0.2%	
1	3.078	6.314	12.706	31.821	63.657	318.31	
2	1.886	2.920	4.303	6.965	9.925	22.327	
3	1.638	2.353	3.182	4.541	5.841	10.215	
4	1.533	2.132	2.776	3.747	4.604	7.173	
5	1.476	2.015	2.571	3.365	4.032	5.893	
6	1.440	1.943	2.447	3.143	3.707	5.208	
7	1.415	1.895	2.365	2.998	3.499	4.785	
8	1.397	1.860	2.306	2.896	3.355	4.501	
9	1.383	1.833	2.262	2.821	3.250	4.297	
10	1.372	1.812	2.228	2.764	3.169	4.144	
11	1.363	1.796	2.201	2.718	3.106	4.025	
12	1.356	1.782	2.179	2.681	3.055	3.930	
13	1.350	1.771	2.160	2.650	3.012	3.852	
14	1.345	1.761	2.145	2.624	2.977	3.787	
15	1.341	1.753	2.131	2.602	2.947	3.733	
16	1.337	1.746	2.120	2.583	2.921	3.686	
17	1.333	1.740	2.110	2.567	2.898	3.646	
18	1.330	1.734	2.101	2.552	2.878	3.610	
19	1.328	1.729	2.093	2.539	2.861	3.579	
20	1.325	1.725	2.086	2.528	2.845	3.552	
21	1.323	1.721	2.080	2.518	2.831	3.527	
22	1.321	1.717	2.074	2.508	2.819	3.505	
23	1.319	1.714	2.069	2.500	2.807	3.485	
24	1.318	1.711	2.064	2.492	2.797	3.467	
25	1.316	1.708	2.060	2.485	2.787	3.450	
30	1.310	1.697	2.042	2.457	2.750	3.385	
35	1.306	1.690	2.030	2.438	2.724	3.340	
40	1.303	1.684	2.021	2.423	2.704	3.307	
50	1.299	1.676	2.009	2.403	2.678	3.261	
$\infty$	1.282	<b>1.645</b>	<b>1.960</b>	2.326	2.576	3.090	

Positive  $z$ -scores  
with area to the left

$z$	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	0.7703	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
3.0	0.9987	0.9987	0.9987	0.9988	0.9988	0.9989	0.9989	0.9989	0.9990	0.9990

Critical  $\chi^2$  values

deg. freedom	Area in the right tail						
	10.0%	5.0%	2.5%	1.0%	0.5%	0.1%	
1	2.706	3.841	5.024	6.635	7.879	10.828	
2	4.605	5.991	7.378	9.210	10.597	13.816	
3	6.251	7.815	9.348	11.345	12.838	16.266	
4	7.779	9.488	11.143	13.277	14.860	18.467	
5	9.236	11.070	12.833	15.086	16.750	20.515	
6	10.645	12.592	14.449	16.812	18.548	22.458	
7	12.017	14.067	16.013	18.475	20.278	24.322	
8	13.362	15.507	17.535	20.090	21.955	26.125	
9	14.684	16.919	19.023	21.666	23.589	27.877	
10	15.987	18.307	20.483	23.209	25.188	29.588	
11	17.275	19.675	21.920	24.725	26.757	31.264	
12	18.549	21.026	23.337	26.217	28.300	32.910	
13	19.812	22.362	24.736	27.688	29.819	34.528	
14	21.064	23.685	26.119	29.141	31.319	36.123	
15	22.307	24.996	27.488	30.578	32.801	37.697	