Area under the Normal curve from 0 to z



									-	
Z	0	1	2	3	4	5	6	7	8	9
0.0	0.0000	0.0040	0.0080	0.0120	0.0160	0.0199	0.0239	0.0279	0.0319	0.0359
0.1	0.0398	0.0438	0.0478	0.0517	0.0557	0.0596	0.0636	0.0675	0.0714	0.0754
0.2	0.0793	0.0832	0.0871	0.0910	0.0948	0.0987	0.1026	0.1064	0.1103	0.1141
0.3	0.1179	0.1217	0.1255	0.1293	0.1331	0.1368	0.1406	0.1443	0.1480	0.1517
0.4	0.1554	0.1591	0.1628	0.1664	0.1700	0.1736	0.1772	0.1808	0,1844	0.1879
0.5	0.1915	0.1950	0.1985	0.2019	0.2054	0.2088	0.2123	0.2157	0.2190	0.2224
0.6	0.2258	0.2291	0.2324	0.2357	0.2389	0.2422	0.2454	0.2486	0.2518	0.2549
0.7	0.2580	0.2612	0.2642	0.2673	0.2704	0.2734	0.2764	0.2794	0.2823	0.2852
0.8	0.2881	0.2910	0.2939	0.2967	0.2996	0.3023	0.3051	0.3078	0.3106	0.3133
0.9	0.3159	0.3186	0.3212	0.3238	0.3264	0.3289	0.3315	0.3340	0.3365	0.3389
1.0	0.3413	0.3438	0.3461	0.3485	0.3508	0.3531	0.3554	0.3577	0.3599	0.3621
1.1	0.3643	0.3665	0.3686	0.3708	0.3729	0.3749	0.3770	0.3790	0.3810	0.3830
.1.2	0.3849	0.3869	0.3888	0.3907	0.3925	0.3944	0.3962	0.3980	0.3997	0.4015
1.3	0.4032	0.4049	0.4066	0.4082	0.4099	0.4115	0.4131	0.4147	0.4162	0.4177
.1.4	0.4192	0.4207	0.4222	0.4236	0.4251	0.4265	0.4279	0.4292	0.4306	0.4319
1.5	0.4332	0.4345	0.4357	0.4370	0.4382	0.4394	0.4406	0.4418	0.4429	0.4441
1.6	0.4452	0.4463	0.4474	0.4484	0.4495	0.4505	0.4515	0.4525	0.4535	0.4545
1.7	0.4554	0.4564	0.4573	0.4582	0.4591	0.4599	0.4608	0.4616	0.4625	0.4633
1.8	0.4641	0.4649	0.4656	0.4664	0.4671	0.4678	0.4686	0.4693	0.4699	0.4706
1.9	0.4713	0.4719	0.4726	0.4732	0.4738	0.4744	0.4750	0.4756	0.4761	0.4767
2.0	0.4772	0.4778	0.4783	0.4788	0.4793	0.4798	0.4803	0.4808	0.4812	0.4817
2.1	0.4821	0.4826	0.4830	0.4834	0.4838	0.4842	0.4846	0.4850	0.4854	0.4857
2.2	0.4861	0.4864	0.4868	0.4871	0.4875	0.4878	0.4881	0.4884	0.4887	0.4890
2.3	0.4893	0.4896	0.4898	0.4901	0.4904	0.4906	0.4909	0.4911	0.4913	0.4916
2.4	0.4918	0.4920	0.4922	0.4925	0.4927	0.4929	0.4931	0.4932	0.4934	0.4936
2.5	0.4938	0.4940	0.4941	0.4943	0.4945	0.4946	0.4948	0.4949	0.4951	0.4952
2.0	0.4953	0.4955	0.4956	0.4957	0.4959	0.4960	0.4961	0.4962	0.4963	0.4964
2.7	0.4965	0.4966	0.4967	0.4968	0.4969	0.4970	0.4971	0.4972	0.4973	0.4974
2.8	0.4974	0.4975	0.4976	0.4977	0.4977	0.4978	0.4979	0.4979	0.4980	0.4981
2.9	0.4981	0.4982	0.4982	0.4983	0.4984	0.4984	0.4985	0.4985	0.4986	0.4986
3.0	0.4987	0.4987	0.4987	0.4988	0 1988	0,4989	0.4989	0.4989	0.4990	0.4990
3.1	0.4990	0.4991	0.4991	0.4991	0.499	5.4992	0.4992	0.4992	0.4993	.,0.4993



Values of $|\mathbf{t}|$ with probability P and degrees of freedom \mathbf{v}

P 1	0.50	0.10	0.05	0.02	0.01
1					001,
,					
,	1.000	6.34	12.71	31.82	63.66
2	0.816	2.92	4.30	6.96	9.92
3	0.765	2.35	3.18	4.54	5.84
4	0.741	2.13	2.78	3.75	4.60
5	0.727	2.02	2.57	3.36	4.03
6	0.718	1.94	2.45	3.14	3.71
7	0.711	1.90	2.36	3.00	3.50
8	0.706	1.86	2.31	2.90	3.36
9	0.703	1.83	2.26	2.82	3.25
10	0.700	1.81	2.23	2.76	3.17
11	0.697	1.80	2.20	2.72	3.11
12	0.695	1.78	2.18	2.68	3.06
13	0.694	1.77	2.16	2.65	3.01
14	0.692	1.76	2.14	2.62	2.98
15	0.691	1.75	2.13	2.60	2.95
16	0.690	1.75	2.12	2.58	2.92
17 17 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0-689	1.74	. 2.11	2.57	2.90
18	0.688	1.73	2.10	2.55	2.88
19	0.688	1.73	2.09	2.54	2.86
20	0.687	1.72	2.09	2.53	2.84
21	0.686	1.72	2.08	2.52	2.83
22	0.686	1.72	2.07	2.51	2.82
23	0.685	1.71	2.07	2.50	2.81
24	0.685	1.71	2.06	2.49	2.80
25	0.684	1.71	2.06	2 48	2.79
26	0.684	1.71	2.06	2.48	2.78
27	0.684	1.70	2.05	2.47	2.77
1. Jan 1. July 19	0.683	1.70	2 05	2 47	2.76
28 29	0.683	1.70	2.04	2.46	2.76
30	0.683	1.70	2.04	2.46	2.75



1	1						·						
2 1851 1900 1916 1925 1930 1932 1937 1941 1945 1960 9950 9917 9925 9930 9933 9936 9942 9946 9950 3 1013 955 928 912 901 894 884 874 864 863 3412 3082 2946 2871 2824 2791 2749 2705 2660 2612 4 7.71 694 659 639 626 616 604 591 577 563 2120 1800 1669 1598 1552 1521 1480 1437 1393 1346 5 661 5.79 541 519 505 495 482 468 453 436 1626 1327 1206 1139 1097 1067 1027 989 947 902 1374 1092 978 915 8.75 <t< th=""><th></th><th>Vı</th><th>1</th><th>2</th><th>3</th><th>4</th><th>5</th><th>6</th><th>8</th><th>12</th><th>24</th><th>00</th><th></th></t<>		Vı	1	2	3	4	5	6	8	12	24	00	
98.49 99.00 99.17 99.25 99.30 99.33 99.36 99.42 99.46 99.50 3 10.13 9.55 92.8 9.12 90.1 8.94 8.84 8.74 8.64 8.53 34.12 30.82 29.46 28.71 28.24 27.91 27.49 27.05 26.60 26.12 4 7.71 6.94 6.59 6.39 6.26 6.16 6.04 5.91 5.77 5.63 21.20 18.00 16.69 15.98 15.52 15.21 14.80 14.37 13.33 13.46 5 6.61 5.79 5.41 5.19 5.05 4.95 4.82 4.68 4.53 4.36 16.26 13.27 12.06 11.39 10.97 10.67 10.27 9.89 9.47 9.02 6 5.99 5.14 4.76 4.53 4.39 4.28 4.15 4.00 3.84 3.67 13.74 10.92 9.78 9.15 8.75 8.47 8.10 7.72 7.31 6.84 12.25 9.55 8.45 7.85 7.46 7.19 6.84 6.47 6.07 5.65 8 5.32 4.46 4.07 3.84 3.69 3.68 3.44 3.28 3.12 2.93 11.26 8.65 7.59 7.01 6.63 6.37 6.03 5.67 5.28 4.86 9 5.12 4.26 3.86 3.63 3.48 3.37 3.23 3.07 2.90 2.93 11.26 8.65 7.59 7.01 6.63 6.37 6.03 5.67 5.28 4.86 10.04 7.56 6.55 5.99 5.64 5.39 5.06 4.71 4.33 3.91 10 4.96 4.10 3.71 3.48 3.33 3.22 3.07 2.91 2.74 2.54 10.04 7.56 6.55 5.99 5.64 5.39 5.06 4.71 4.33 3.91 12 4.75 3.88 3.49 3.26 3.11 3.00 2.85 2.69 2.50 2.30 9.33 6.83 5.95 5.41 5.96 4.82 4.50 4.16 3.78 3.36 14 4.60 3.74 3.34 3.11 2.96 2.85 2.70 2.53 2.35 2.31 8.86 6.51 5.56 5.03 4.69 4.46 4.14 3.80 3.43 3.00 16 4.49 3.63 3.24 3.01 2.85 2.77 2.66 2.51 2.34 2.15 1.92 8.28 6.01 5.09 4.58 4.25 4.01 3.71 3.37 3.60 3.43 3.00 16 4.49 3.63 3.24 3.01 2.85 2.77 2.66 2.51 2.34 2.15 1.92 8.28 6.01 5.09 4.58 4.25 4.01 3.71 3.37 3.01 2.67 2.04 3.35 3.49 3.10 2.87 2.77 2.66 2.51 2.34 2.15 1.92 8.28 6.01 5.09 4.58 4.25 4.01 3.71 3.37 3.01 2.57 2.04 3.35 3.49 3.10 2.87 2.77 2.66 2.51 2.34 2.15 1.92 8.28 6.01 5.09 4.58 4.25 4.01 3.71 3.37 3.01 2.57 2.04 3.35 3.49 3.10 2.87 2.77 2.66 2.51 2.34 2.15 1.92 8.29 4.24 3.38 2.99 2.76 2.60 2.49 2.34 2.16 1.96 1.71 7.77 5.57 4.68 4.18 *3.86 3.63 3.32 2.99 2.66 2.29 1.81 8.10 5.85 4.94 4.43 4.10 3.87 3.56 3.23 2.86 2.42 2.54 4.24 3.38 2.99 2.76 2.60 2.49 2.34 2.16 1.96 1.71 7.77 5.57 4.68 4.18 *3.86 3.63 3.32 2.99 2.66 2.29 1.81 8.00 4.00 3.15 2.76 2.52 2.37 2.25 2.10 1.92 1.70 1.59 1.60 8.00 4.00 3.15 2.76 2.52 2.37 2.25 2.10 1.92 1.70 1.59 1.60		V2				_ = 1		4,			> .	У,	
9849 9900 9917 9925 9930 9933 9936 9942 9946 9950		2	18-51	19.00	19-16	19.25 ·	19:30	19-32	19.37	19.41	19.45	19:50	
3			98.49	99.00	99.17	99.25	99.30	99.33	99.36	99.42		29	
34.12 30.82 29.46 28.71 28.24 27.91 27.49 27.05 26.60 26.12 4 7.71 6.94 6.69 6.39 6.26 6.16 6.04 5.91 5.77 5.63 21.20 18.00 16.69 15.98 15.52 15.21 14.80 14.37 13.93 13.94 5 6.61 5.79 5.41 5.19 5.05 4.95 4.82 4.68 45.3 4.38 16.26 13.27 12.06 11.39 10.97 10.67 10.27 9.89 9.47 9.02 6 5.99 5.14 4.76 4.53 4.39 4.28 4.15 4.00 3.84 3.67 13.74 10.92 9.78 9.16 8.75 8.47 8.10 7.72 7.31 6.88 7 5.59 4.74 4.97 3.84 3.69 3.58 3.44 3.28 3.12 2.93 112.6<	4	. 3	10.13	9.55	9.28	9.12	9.01	8.94	8.84	8.74			
4 7.71 6.94 6.59 6.39 6.26 6.16 6.04 5.91 5.77 5.63 21.20 18.00 16.69 15.98 15.52 15.21 14.80 14.37 13.93 13.46 5 6.61 5.79 5.41 5.19 5.05 4.95 4.82 4.68 4.53 4.36 16.26 13.27 12.06 11.39 10.97 10.67 10.27 989 9.47 902 6 5.99 5.14 4.76 4.53 4.39 4.28 4.15 4.00 3.84 3.67 13.74 10.92 9.78 9.16 8.75 8.47 8.10 7.72 7.31 6.88 7 5.59 4.74 4.35 4.12 3.97 3.87 3.73 3.57 3.41 3.23 12.25 9.55 8.45 7.85 7.46 7.19 6.84 6.47 607 5.65 8 <td< th=""><th></th><th></th><th>34.12</th><th>30.82</th><th>29.46</th><th>28.71</th><th>28.24</th><th>27.91</th><th>27.49</th><th>27.05</th><th></th><th></th><th></th></td<>			34.12	30.82	29.46	28.71	28.24	27.91	27.49	27.05			
21.20 18.00 16.69 15.98 15.52 15.21 14.80 14.37 13.93 13.46 5 661 5.79 5.41 5.19 5.05 4.95 4.82 4.68 4.53 4.36 16.26 13.27 12.06 11.39 10.97 10.67 10.27 9.89 9.47 9.02 6 5.99 5.14 4.76 4.53 4.39 4.28 4.15 4.00 3.84 3.67 13.74 10.92 9.78 9.15 8.75 8.47 8.10 7.72 7.31 6.88 7 5.59 4.74 4.35 4.12 3.97 3.87 3.73 3.57 3.41 3.23 12.25 9.55 8.45 7.85 7.46 7.19 6.84 6.47 6.07 5.65 8 5.32 4.46 4.07 3.84 3.69 3.58 3.44 3.28 3.12 2.93 11.26		4	7.71	6.94	6.59	6.39	6.26	6.16	6.04	5.91	5.77		
5 661 5.79 541 519 5.05 4.95 4.82 4.68 4.53 4.36 16:26 13:27 12:06 11:39 10:97 10:67 10:27 9:89 9:47 9:02 6 5:99 5:14 4:76 4:53 4:39 4:28 4:15 4:00 3:84 3:67 13:74 10:92 9:78 9:15 8:75 8:47 8:10 7:72 7:31 6:88 7 5:59 4:74 4:35 4:12 3:97 3:87 3:73 3:57 3:41 3:23 12:25 9:55 8:45 7:86 7:46 7:19 6:84 6:47 6:07 5:65 8 5:32 4:46 4:07 3:84 3:69 3:58 3:44 3:28 3:12 2:93 11:26 8:65 7:59 7:01 6:63 6:37 6:03 5:67 5:28 4:86 9:512 4:26			21.20	18.00	16-69	15.98	15.52	15.21	14-80	14.37	13.93		
6 16-26 13-27 12-06 11-39 10-97 10-67 10-27 9-89 9-47 902 6 5-99 5-14 4-76 4-53 4-39 4-28 4-15 4-00 3-84 3-67 13-74 10-92 9-78 9-15 8-75 8-47 8-10 7-72 7-31 6-88 7 5-59 4-74 4-35 4-12 3-97 3-87 3-73 3-57 3-41 3-23 12-25 9-55 8-45 7-85 7-46 7-19 6-84 6-47 6-07 5-65 8 5-32 4-46 407 3-84 3-69 3-58 3-44 3-28 3-12 2-93 11-26 8-65 7-59 7-01 6-63 6-37 6-03 5-67 5-28 4-86 9 5-12 4-26 3-86 3-63 3-48 3-32 3-07 2-91 2-71 2-54 2-51 1-44		5	6-61	5.79	5.41	5.19	5.05	4.95	4.82	4.68	4.53		
6 5.99 5.14 4.76 453 4.39 4.28 4.15 4.00 3.84 3.67 13.74 10.92 9.78 9.15 8.75 8.47 8.10 7.72 7.31 6.88 7 5.59 4.74 4.35 4.12 3.97 3.87 3.73 3.57 3.41 3.23 12.25 9.55 8.45 7.85 7.46 7.19 6.84 6.47 6.07 5.65 8 5.32 4.46 4.07 3.84 3.69 3.58 3.44 3.28 3.12 2.93 11.26 8.65 7.59 7.01 6.63 6.37 603 5.67 5.28 4.86 9 5.12 4.26 3.86 3.63 3.48 3.37 3.23 3.07 2.90 2.71 10.56 8.02 6.99 6.42 6.06 5.80 5.47 5.11 4.73 3.43 3.31 1.21 4.75 <th></th> <th></th> <th>16-26</th> <th>13.27</th> <th>12.06</th> <th>11.39</th> <th>10.97</th> <th>10.67</th> <th>10.27</th> <th>9.89</th> <th>9.47</th> <th></th> <th>ĺ</th>			16-26	13.27	12.06	11.39	10.97	10.67	10.27	9.89	9.47		ĺ
7 5.59 4.74 4.35 4.12 3.97 3.87 3.73 3.57 3.41 3.23 12.25 9.55 8.45 7.85 7.46 7.19 6.84 6.47 6.07 5.65 8 5.32 4.46 4.07 3.84 3.69 3.58 3.44 3.28 3.12 2.93 11.26 8.65 7.59 7.01 6.63 6.37 6.03 5.67 5.28 4.86 9 5.12 4.26 3.86 3.63 3.48 3.37 3.23 3.07 2.90 2.71 10.56 8.02 6.99 6.42 6.06 5.80 5.47 5.11 4.73 4.31 10 4.96 4.10 3.71 3.48 3.33 3.22 3.07 2.91 2.74 2.54 10.04 7.56 6.55 5.99 5.64 5.39 5.06 4.71 4.33 3.91 12 4.75		6	5.99	5.14	4.76	4.53	4.39	4.28	4.15	4.00	3.84		
12.25			13.74	10.92	9.78	9.15	8.75	8.47	8.10	7.72	7.31	6.88	
8 532 446 4.07 3.84 3.69 3.68 3.44 3.28 3.12 2.93 11.26 8.65 7.59 7.01 6.63 6.37 6.03 5.67 5.28 4.86 9 5.12 4.26 3.86 3.63 3.48 3.37 3.23 3.07 2.90 2.71 10.56 8.02 6.99 6.42 6.06 5.80 5.47 5.11 4.73 4.31 10 4.96 4.10 3.71 3.48 3.33 3.22 3.07 2.91 2.74 2.54 10.04 7.56 6.55 5.99 5.64 5.39 5.06 4.71 4.33 3.91 12 4.75 3.88 3.49 3.26 3.11 3.00 2.85 2.69 2.50 2.30 9.33 6.93 5.95 5.41 5.06 4.82 4.50 4.16 3.78 3.36 14 4.60 3.74 3.34 3.11 2.96 2.85 2.70 2.53 2.35		7	5.59	4.74	4.35	4.12	3.97	3.87	3.73	3.57	3.41	3.23	
11.26	1		12.25	9.55	8.45	7.85	7.46	7.19	6.84	6.47	6.07	5.65	ĺ
9	1	8	5.32	4.46	4.07	3.84	3.69	3.58	3.44	3.28	3.12	2.93	
10 4.96 8.02 6.99 6.42 6.06 5.80 5.47 5.11 4.73 4.31 10 4.96 4.10 3.71 3.48 3.33 3.22 3.07 2.91 2.74 2.54 10.04 7.56 6.55 5.99 5.64 5.39 5.06 4.71 4.33 3.91 12 4.75 3.88 3.49 3.26 3.11 3.00 2.85 2.69 2.50 2.30 9.33 6.93 5.95 5.41 5.06 4.82 4.50 4.16 3.78 3.36 14 4.60 3.74 3.34 3.11 2.96 2.85 2.70 2.53 2.35 2.13 8.86 6.51 5.56 5.03 4.69 4.46 4.14 3.80 3.43 3.00 16 4.49 3.63 3.24 3.01 2.85 2.74 2.59 2.42 2.24 2.01 8.53			11-26	8.65	7.59	7.01	6.63	6.37	6.03	5.67	5⋅28	4.86	
10 4.96 4.10 3.71 3.48 3.33 3.22 3.07 2.91 2.74 2.54 10.04 7.56 6.55 5.99 5.64 5.39 5.06 4.71 4.33 3.91 12 4.75 3.88 3.49 3.26 3.11 3.00 2.85 2.69 2.50 2.30 9.33 6.93 5.95 5.41 5.06 4.82 4.50 4.16 3.78 3.36 14 4.60 3.74 3.34 3.11 2.96 2.85 2.70 2.53 2.35 2.13 8.86 6.51 5.56 5.03 4.69 4.46 4.14 3.80 3.43 3.00 16 4.49 3.63 3.24 3.01 2.85 2.74 2.59 2.42 2.24 2.01 8.53 6.23 5.29 4.77 4.44 4.20 3.89 3.55 3.18 2.75 18 4.41 3.55 3.16 2.93 2.77 2.66 2.51 2.34 2.15	1	9	5.12	4.26	3⋅86	3.63	3.48	3.37	3.23	3.07	2.90	2.71	
10.04			10.56	8.02	6.99	6.42	6.06	5.80	5.47	5.11	4.73	4.31	
12 4.75 3.88 3.49 3.26 3.11 3.00 2.85 2.69 2.50 2.30 9.33 6.93 5.95 5.41 5.06 4.82 4.50 4.16 3.78 3.36 14 4.60 3.74 3.34 3.11 2.96 2.85 2.70 2.53 2.35 2.13 8.86 6.51 5.56 5.03 4.69 4.46 4.14 3.80 3.43 3.00 16 4.49 3.63 3.24 3.01 2.85 2.74 2.59 2.42 2.24 2.01 8.53 6.23 5.29 4.77 4.44 4.20 3.89 3.55 3.18 2.75 18 4.41 3.55 3.16 2.93 2.77 2.66 2.51 2.34 2.15 1.92 8.28 6.01 5.09 4.58 4.25 4.01 3.71 3.37 3.01 2.57 20 4.35 3.49 3.10 2.87 2.71 2.60 2.45 2.28 2.08		10	4.96	4.10	3.71	3.48	3.33	3.22	3.07	2.91	2.74	2.54	
9.33 6.93 5.95 5.41 5.06 4.82 4.50 4.16 3.78 3.36 4.60 3.74 3.34 3.11 2.96 2.85 2.70 2.53 2.35 2.13 8.86 6.51 5.56 5.03 4.69 4.46 4.14 3.80 3.43 3.00 16 4.49 3.63 3.24 3.01 2.85 2.74 2.59 2.42 2.24 2.01 8.53 6.23 5.29 4.77 4.44 4.20 3.89 3.55 3.18 2.75 18 4.41 3.55 3.16 2.93 2.77 2.66 2.51 2.34 2.15 1.92 8.28 6.01 5.09 4.58 4.25 4.01 3.71 3.37 3.01 2.57 2.0 4.35 3.49 3.10 2.87 2.71 2.60 2.45 2.28 2.08 1.84 8.10 5.85 4.94 4.43 4.10 3.87 3.56 3.23 2.86 2.42 2.5 4.24 3.38 2.99 2.76 2.60 2.49 2.34 2.16 1.96 1.71 7.77 5.57 4.68 4.18 3.86 3.63 3.32 2.99 2.62 2.17 3.0 4.17 3.32 2.92 2.69 2.53 2.42 2.27 2.09 1.89 1.62 7.56 5.39 4.51 4.02 3.70 3.47 3.17 2.84 2.47 2.01 4.08 3.23 2.84 2.61 2.45 2.34 2.18 2.00 1.79 1.51 7.31 5.18 4.31 3.83 3.51 3.29 2.99 2.66 2.29 1.81 6.0 4.00 3.15 2.76 2.52 2.37 2.25 2.10 1.92 1.70 1.39 1.60	-		10.04	7.56	6.55	5.99	5.64	5.39	5.06	4.71	4.33	3.91	
14 460 3.74 3.34 3.11 2.96 2.85 2.70 2.53 2.35 2.13 8.86 6.51 5.56 5.03 4.69 4.46 4.14 3.80 3.43 3.00 16 4.49 3.63 3.24 3.01 2.85 2.74 2.59 2.42 2.24 2.01 8.53 6.23 5.29 4.77 4.44 4.20 3.89 3.55 3.18 2.75 18 4.41 3.55 3.16 2.93 2.77 2.66 2.51 2.34 2.15 1.92 8.28 6.01 5.09 4.58 4.25 4.01 3.71 3.37 3.01 2.57 20 4.35 3.49 3.10 2.87 2.71 2.60 2.45 2.28 2.08 1.84 8.10 5.85 4.94 4.43 4.10 3.87 3.56 3.23 2.86 2.42 25 4.24 3.38 2.99 2.76 2.60 2.49 2.34 2.16 1.96		12	4.75	. 3.88	3.49	3.26	3.11	3.00	2.85	2.69	2.50	2.30	
8.86 6.51 5.56 5.03 4.69 4.46 4.14 3.80 3.43 3.00 16 4.49 3.63 3.24 3.01 2.85 2.74 2.59 2.42 2.24 2.01 8.53 6.23 5.29 4.77 4.44 4.20 3.89 3.55 3.18 2.75 18 4.41 3.55 3.16 2.93 2.77 2.66 2.51 2.34 2.15 1.92 8.28 6.01 5.09 4.58 4.25 4.01 3.71 3.37 3.01 2.57 20 4.35 3.49 3.10 2.87 2.71 2.60 2.45 2.28 2.08 1.84 8.10 5.85 4.94 4.43 4.10 3.87 3.56 3.23 2.86 2.42 25 4.24 3.38 2.99 2.76 2.60 2.49 2.34 2.16 1.96 1.71 7.77 5.57 4.68 4.18 3.86 3.63 3.32 2.99 2.62 2.17			9-33	6.93	5.95	5-41	5.06	4.82	4.50	4.16	3.78	3.36	
16 4.49 3.63 3.24 3.01 2.85 2.74 2.59 2.42 2.24 2.01 8.53 6.23 5.29 4.77 4.44 4.20 3.89 3.55 3.18 2.75 18 4.41 3.55 3.16 2.93 2.77 2.66 2.51 2.34 2.15 1.92 8.28 6.01 5.09 4.58 4.25 4.01 3.71 3.37 3.01 2.57 20 4.35 3.49 3.10 2.87 2.71 2.60 2.45 2.28 2.08 1.84 8.10 5.85 4.94 4.43 4.10 3.87 3.56 3.23 2.86 2.42 25 4.24 3.38 2.99 2.76 2.60 2.49 2.34 2.16 1.96 1.71 7.77 5.57 4.68 4.18 3.86 3.63 3.32 2.99 2.62 2.17 30 4.17 3.32 2.92 2.69 2.53 2.42 2.27 2.09 1.89	Ì	14	4-60	3.74	3.34	3.11	2.96	2.85	2.70	2.53	2.35	2.13	7
853 6.23 5.29 4.77 4.44 4.20 3.89 3.55 3.18 2.75 18 4.41 3.55 3.16 2.93 2.77 2.66 2.51 2.34 2.15 1.92 8.28 6.01 5.09 4.58 4.25 4.01 3.71 3.37 3.01 2.57 20 4.35 3.49 3.10 2.87 2.71 2.60 2.45 2.28 2.08 1.84 8.10 5.85 4.94 4.43 4.10 3.87 3.56 3.23 2.86 2.42 25 4.24 3.38 2.99 2.76 2.60 2.49 2.34 2.16 1.96 1.71 7.77 5.57 4.68 4.18 3.86 3.63 3.32 2.99 2.62 2.17 30 4.17 3.32 2.92 2.69 2.53 2.42 2.27 2.09 1.89 1.62 7.56 5.39 4.51 4.02 3.70 3.47 3.17 2.84 2.47 2.01		4	8-86	6.51	5.56	5.03	4.69	4.46	4.14	3.80	3.43	3.00	
18 4.41 3.55 3.16 2.93 2.77 2.66 2.51 2.34 2.15 1.92 8.28 6.01 5.09 4.58 4.25 4.01 3.71 3.37 3.01 2.57 20 4.35 3.49 3.10 2.87 2.71 2.60 2.45 2.28 2.08 1.84 8.10 5.85 4.94 4.43 4.10 3.87 3.56 3.23 2.86 2.42 25 4.24 3.38 2.99 2.76 2.60 2.49 2.34 2.16 1.96 1.71 7.77 5.57 4.68 4.18 3.86 3.63 3.32 2.99 2.62 2.17 30 4.17 3.32 2.92 2.69 2.53 2.42 2.27 2.09 1.89 1.62 7.56 5.39 4.51 4.02 3.70 3.47 3.17 2.84 2.47 2.01 40 4.08 3.23 2.84 2.61 2.45 2.34 2.18 2.00 1.79		16	4.49	3.63	3.24	3.01	2.85	2.74	2.59	2.42	2.24	2.01	١
8.28 6.01 5.09 4.58 4.25 4.01 3.71 3.37 3.01 2.57 20 4.35 3.49 3.10 2.87 2.71 2.60 2.45 2.28 2.08 1.84 8.10 5.85 4.94 4.43 4.10 3.87 3.56 3.23 2.86 2.42 25 4.24 3.38 2.99 2.76 2.60 2.49 2.34 2.16 1.96 1.71 7.77 5.57 4.68 4.18 3.86 3.63 3.32 2.99 2.62 2.17 30 4.17 3.32 2.92 2.69 2.53 2.42 2.27 2.09 1.89 1.62 7.56 5.39 4.51 4.02 3.70 3.47 3.17 2.84 2.47 2.01 40 4.08 3.23 2.84 2.61 2.45 2.34 2.18 2.00 1.79 1.51 7.31 5.18 4.31 3.83 3.51 3.29 2.99 2.66 2.29 1.81	1		8.53	6.23	5.29	4.77	4.44	4.20	3.89	3.55	3.18	2.75	l
20 4·35 3·49 3·10 2·87 2·71 2·60 2·45 2·28 2·08 1·84 8·10 5·85 4·94 4·43 4·10 3·87 3·56 3·23 2·86 2·42 25 4·24 3·38 2·99 2·76 2·60 2·49 2·34 2·16 1·96 1·71 7·77 5·57 4·68 4·18 3·86 3·63 3·32 2·99 2·62 2·17 30 4·17 3·32 2·92 2·69 2·53 2·42 2·27 2·09 1·89 1·62 7·56 5·39 4·51 4·02 3·70 3·47 3·17 2·84 2·47 2·01 40 4·08 3·23 2·84 2·61 2·45 2·34 2·18 2·00 1·79 1·51 7·31 5·18 4·31 3·83 3·51 3·29 2·99 2·66 2·29 1·81 60 4·00 3·15 2·76 2·52 2·37 2·25 2·10 1·92 1·70 1·39 60 4·00 3·15 2·76 2·52 2·37 2·25 2·10 1·92 1·70 1·50 <th>1</th> <th>18</th> <th>4.41</th> <th>3.55</th> <th>3.16</th> <th>2.93</th> <th>2.77</th> <th>2.66</th> <th>2.51</th> <th>2.34</th> <th>2.15</th> <th>1.92</th> <th>١</th>	1	18	4.41	3.55	3.16	2.93	2.77	2.66	2.51	2.34	2.15	1.92	١
8.10 5.85 4.94 4.43 4.10 3.87 3.56 3.23 2.86 2.42 25 4.24 3.38 2.99 2.76 2.60 2.49 2.34 2.16 1.96 1.71 7.77 5.57 4.68 4.18 3.86 3.63 3.32 2.99 2.62 2.17 30 4.17 3.32 2.92 2.69 2.53 2.42 2.27 2.09 1.89 1.62 7.56 5.39 4.51 4.02 3.70 3.47 3.17 2.84 2.47 2.01 40 4.08 3.23 2.84 2.61 2.45 2.34 2.18 2.00 1.79 1.51 7.31 5.18 4.31 3.83 3.51 3.29 2.99 2.66 2.29 1.81 60 4.00 3.15 2.76 2.52 2.37 2.25 2.10 1.92 1.70 1.39 60 4.00 3.15 2.76 2.52 2.37 2.25 2.10 1.92 1.70 1.60			8.28	6.01	5.09	4.58	4.25	4.01	3.71	3.37	3.01	2.57	l
25	1	20	4.35	3.49	3.10	2.87	2.71	2.60	2.45	2.28	2.08	1.84	١
7.77 5.57 4.68 4.18 3.86 3.63 3.32 2.99 2.62 2.17 30 4.17 3.32 2.92 2.69 2.53 2.42 2.27 2.09 1.89 1.62 7.56 5.39 4.51 4.02 3.70 3.47 3.17 2.84 2.47 2.01 40 4.08 3.23 2.84 2.61 2.45 2.34 2.18 2.00 1.79 1.51 7.31 5.18 4.31 3.83 3.51 3.29 2.99 2.66 2.29 1.81 60 4.00 3.15 2.76 2.52 2.37 2.25 2.10 1.92 1.70 1.39 60 4.00 3.15 2.76 2.52 2.37 2.25 2.10 1.92 1.70 1.39	1		8-10	5.85	4.94	4.43	4.10	3.87	3.56	3.23	2⋅86	2.42	l
30 4.17 3.32 2.92 2.69 2.53 2.42 2.27 2.09 1.89 1.62 7.56 5.39 4.51 4.02 3.70 3.47 3.17 2.84 2.47 2.01 40 4.08 3.23 2.84 2.61 2.45 2.34 2.18 2.00 1.79 1.51 7.31 5.18 4.31 3.83 3.51 3.29 2.99 2.66 2.29 1.81 60 4.00 3.15 2.76 2.52 2.37 2.25 2.10 1.92 1.70 1.39 60 4.00 3.15 2.76 2.52 2.37 2.25 2.10 1.92 1.70 1.39 60 4.00 3.15 2.76 2.52 2.37 2.25 2.10 1.92 1.70 1.60		25	4.24	3⋅38	2.99	2.76	2.60	2.49	2.34	2.16	1.96	1.71	
40 7.56 5.39 4.51 4.02 3.70 3.47 3.17 2.84 2.47 2.01 40 4.08 3.23 2.84 2.61 2.45 2.34 2.18 2.00 1.79 1.51 7.31 5.18 4.31 3.83 3.51 3.29 2.99 2.66 2.29 1.81 60 4.00 3.15 2.76 2.52 2.37 2.25 2.10 1.92 1.70 1.39 60 4.00 3.15 2.76 2.52 2.37 2.25 2.10 1.92 1.70 1.60			7.77	5.57	4.68	4-18	3.86	3.63	3.32	2.99	2.62	2.17	
40 7.56 5.39 4.51 4.02 3.70 3.47 3.17 2.84 2.47 2.01 40 4.08 3.23 2.84 2.61 2.45 2.34 2.18 2.00 1.79 1.51 7.31 5.18 4.31 3.83 3.51 3.29 2.99 2.66 2.29 1.81 60 4.00 3.15 2.76 2.52 2.37 2.25 2.10 1.92 1.70 1.39 1.60 3.12 3.29 3.12 3.50 3.12 3.60 3.12 1.60	1	30	4.17	3.32	2.92	2.69	2.53	2.42	2.27	2.09	1.89	1.62	
40 4.08 3.23 2.84 2.61 2.45 2.34 2.18 2.00 1.79 1.51 7.31 5.18 4.31 3.83 3.51 3.29 2.99 2.66 2.29 1.81 60 4.00 3.15 2.76 2.52 2.37 2.25 2.10 1.92 1.70 1.39 1.60 3.15 2.76 2.52 2.34 3.12 3.50 3.50 3.12 1.60			, **	5.39	4.51	4.02	3.70	3.47	3.17	2.84	2.47	2.01	
7·31 5·18 4·31 3·83 3·51 3·29 2·99 2·66 2·29 1·81 60 4·00 3·15 2·76 2·52 2·37 2·25 2·10 1·92 1·70 1·39 1·60		40		3.23	2.84	2.61	2.45	2.34	2.18	2.00	1.79	1.51	
60 4.00 3.15 2.76 2.52 2.37 2.25 2.10 1.92 1.70 1.39		,			4.31	3.83	3.51	3.29	2.99	2.66	2.29	1.81	
201 201 201 201 200 200 210 1.60	1	60				2.52	2.37	2.25	2.10	1.92	1.70	1.39	
		00	7.08	4.98	4.13	3.65	3.34	3.12	2.82	2.50	2.12	1.60	



Values of χ^2 with probability P and df ν

P	0.99	0.95	0.50	0.30	0.50	0.10	0.05	001
N	4		to the contract of the Contrac	A ser marriata agus agus ann agus ann agus an ann an ann ann ann ann ann ann ann				
Tonick and old pro-	0 0002	0.004	0.46	1.07	1.64	2.71	3.84	6.64
2	0.020	0.103	1-39	241	3.22	4 60	5.99	9-21
3	0 115	0.35	2.37	3-66	4-64	6-25	7-82	11-34
4	0.30	0.71	3.36	4.88	5.99	7.78	9.49	13-28
. 5	0.55	1-14	4.35	6.06	7-29	9-24	11-07	15-09
6	0.87	1.64	5-35	7-23	8-56	10-64	12-59	16-81
7	1.24	2.17	6 35	8-38	9.80	12-02	14 07	18-48
8	1.65	2.73	7.34	9-52	11 03	13-36	15-51	20-09
9	2 09	3.32	8-34	10-66	12-24	14-68	16-92	21-67
10	2.56	3.94	9.34	11.78	13-44	15-99	18-31	23-21
11	3.05	4.58	10-34	12.90	14-63	17-28	19-68	24-72
12	3.57	5.23	11-34	14-01	15-81	18-55	21-03	26-22
13	4-11	5.89	12-34	15-12	16-98	19-81	22-36	27-69
14	4.66	6.57	13-34	16-22	18-15	21-06	23-68	29-14
15	5.23	7.26	14-34	17-32	1931	22-31	25-00	30-58
16	5-81	7.96	15-34	18-42	20-46	23-54	26-30	32-66
17	6-41	8-67	16-34	19-51	21-62	24-77	27-59	3341
18	7.02	9.39	17-34	20-60	22.76	25-99	28-87	34-80
19	7.63	10 12	18-34	21-69	23-90	27-20	30-14	36-19
20	8.26	10.85	19-34	22.78	25-04	28-41	31-41	37-57
21	8.90	11.59	20-34	23-86	26-17	29-62	32-67	38-93
22	9.54	12-34	21.34	24.94	27-30	30-81	33-92	40-29
23	10.20	13.09	22-34	26.02	28-43	32-01	35-17	41-64
24	10-86	13-85	23-34	27.10.	29-55	33-20	36-42	42.98
25	11.52	14-61	24-34	28-17	30-68	34-68	37-65	4431
26	12-20	15.38	25-34	29-25	31-80	35-56	38-88	45-64
27	12.88	16-15	26-34	30-32	32-91	36-74	40-11	4696
28	13.56	16.93	27.34	31-39	34-03	37-92	41-34	48-28
	14.26	17.71	28-34	32-46	35 14	39-09	42-56	49-59
29								

