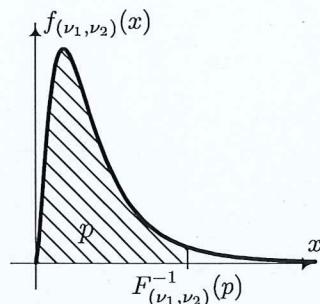


## 6 F distribution

### Inverse $F_{(\nu_1, \nu_2)}^{-1}(p)$ of the cumulative distribution function (quantiles)

The table below contains the quantiles of the F distribution with  $\nu_1$  and  $\nu_2$  degrees of freedom. For  $0 < p < 1$  the quantile is the value of  $x$  for which  $\mathbb{P}\{X \leq x\} = p$ , where  $X \sim F(\nu_1, \nu_2)$ . Thus  $x = F_{(\nu_1, \nu_2)}^{-1}(p)$ .

The table only contains the quantiles for  $p \geq \frac{1}{2}$ . For  $p < \frac{1}{2}$  quantiles can be obtained by exploiting the symmetry of the F distribution:  $F_{(\nu_1, \nu_2)}^{-1}(p) = \frac{1}{F_{(\nu_2, \nu_1)}^{-1}(1-p)}$ .



$\nu_1$	$\nu_2$	$p$				
		0.9	0.95	0.975	0.99	0.995
1	1	39.863	161.45	647.79	4052.2	16211
	2	8.5263	18.513	38.506	98.503	198.50
	3	5.5383	10.128	17.443	34.116	55.552
	4	4.5448	7.7086	12.218	21.198	31.333
	5	4.0604	6.6079	10.007	16.258	22.785
	6	3.7759	5.9874	8.8131	13.745	18.635
	7	3.5894	5.5914	8.0727	12.246	16.236
	8	3.4579	5.3177	7.5709	11.259	14.688
	9	3.3603	5.1174	7.2093	10.561	13.614
	10	3.2850	4.9646	6.9367	10.044	12.826
	11	3.2252	4.8443	6.7241	9.6460	12.226
	12	3.1765	4.7472	6.5538	9.3302	11.754
	13	3.1362	4.6672	6.4143	9.0738	11.374
	14	3.1022	4.6001	6.2979	8.8616	11.060
	15	3.0732	4.5431	6.1995	8.6831	10.798
	16	3.0481	4.4940	6.1151	8.5310	10.575
	17	3.0262	4.4513	6.0420	8.3997	10.384
	18	3.0070	4.4139	5.9781	8.2854	10.218
	19	2.9899	4.3807	5.9216	8.1849	10.073
	20	2.9747	4.3512	5.8715	8.0960	9.9439
	21	2.9610	4.3248	5.8266	8.0166	9.8295
	22	2.9486	4.3009	5.7863	7.9454	9.7271
	23	2.9374	4.2793	5.7498	7.8811	9.6348
	24	2.9271	4.2597	5.7166	7.8229	9.5513
	25	2.9177	4.2417	5.6864	7.7698	9.4753
	30	2.8807	4.1709	5.5675	7.5625	9.1797
	35	2.8547	4.1213	5.4848	7.4191	8.9763
	40	2.8354	4.0847	5.4239	7.3141	8.8279
	45	2.8205	4.0566	5.3773	7.2339	8.7148
	50	2.8087	4.0343	5.3403	7.1706	8.6258
	60	2.7911	4.0012	5.2856	7.0771	8.4946
	70	2.7786	3.9778	5.2470	7.0114	8.4027
	80	2.7693	3.9604	5.2184	6.9627	8.3346
	100	2.7564	3.9361	5.1786	6.8953	8.2406
	120	2.7478	3.9201	5.1523	6.8509	8.1788
	150	2.7393	3.9042	5.1263	6.8069	8.1177
	200	2.7308	3.8884	5.1004	6.7633	8.0572
	500	2.7156	3.8601	5.0543	6.6858	7.9498
	$+\infty$	2.7055	3.8415	5.0239	6.6349	7.8794
2	1	49.500	199.50	799.50	4999.5	19999
	2	9.0000	19.000	39.000	99.000	199.00
	3	5.4624	9.5521	16.044	30.817	49.799
	4	4.3246	6.9443	10.649	18.000	26.284
	5	3.7797	5.7861	8.4336	13.274	18.314
	6	3.4633	5.1433	7.2599	10.925	14.544
	7	3.2574	4.7374	6.5415	9.5466	12.404

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$\nu_1$	$\nu_2$	0.9	0.95	0.975	0.99	0.995
3	15	2.4898	3.2874	4.1528	5.4170	6.4760
	16	2.4618	3.2389	4.0768	5.2922	6.3034
	17	2.4374	3.1968	4.0112	5.1850	6.1556
	18	2.4160	3.1599	3.9539	5.0919	6.0278
	19	2.3970	3.1274	3.9034	5.0103	5.9161
	20	2.3801	3.0984	3.8587	4.9382	5.8177
	21	2.3649	3.0725	3.8188	4.8740	5.7304
	22	2.3512	3.0491	3.7829	4.8166	5.6524
	23	2.3387	3.0280	3.7505	4.7649	5.5823
	24	2.3274	3.0088	3.7211	4.7181	5.5190
	25	2.3170	2.9912	3.6943	4.6755	5.4615
	30	2.2761	2.9223	3.5894	4.5097	5.2388
	35	2.2474	2.8742	3.5166	4.3957	5.0865
	40	2.2261	2.8387	3.4633	4.3126	4.9758
	45	2.2097	2.8115	3.4224	4.2492	4.8918
	50	2.1967	2.7900	3.3902	4.1993	4.8259
	60	2.1774	2.7581	3.3425	4.1259	4.7290
	70	2.1637	2.7355	3.3090	4.0744	4.6613
	80	2.1535	2.7188	3.2841	4.0363	4.6113
	100	2.1394	2.6955	3.2496	3.9837	4.5424
	120	2.1300	2.6802	3.2269	3.9491	4.4972
	150	2.1207	2.6649	3.2044	3.9149	4.4525
	200	2.1114	2.6498	3.1820	3.8810	4.4084
	500	2.0948	2.6227	3.1423	3.8210	4.3304
	$+\infty$	2.0838	2.6049	3.1161	3.7816	4.2794

$\nu_1$	$\nu_2$	0.9	0.95	0.975	0.99	0.995
4	4	500	1.9561	2.3898	2.8114	3.3569
	$+\infty$	1.9449	2.3719	2.7858	3.3192	3.7151
	5	1	57.240	230.16	921.85	5763.6
		2	9.2926	19.296	39.298	99.299
		3	5.3092	9.0135	14.885	28.237
		4	4.0506	6.2561	9.3645	15.522
		5	3.4530	5.0503	7.1464	10.967
		6	3.1075	4.3874	5.9876	8.7459
		7	2.8833	3.9715	5.2852	7.4604
		8	2.7264	3.6875	4.8173	6.6318
		9	2.6106	3.4817	4.4844	6.0569
		10	2.5216	3.3258	4.2361	5.6363
		11	2.4512	3.2039	4.0440	5.3160
		12	2.3940	3.1059	3.8911	5.0643
		13	2.3467	3.0254	3.7667	4.8616
		14	2.3069	2.9582	3.6634	4.6950
		15	2.2730	2.9013	3.5764	4.5556
		16	2.2438	2.8524	3.5021	4.4374
		17	2.2183	2.8100	3.4379	4.3359
		18	2.1958	2.7729	3.3820	4.2479
		19	2.1760	2.7401	3.3327	4.1708
		20	2.1582	2.7109	3.2891	4.1027
		21	2.1423	2.6848	3.2501	4.0421
		22	2.1279	2.6613	3.2151	3.9880
		23	2.1149	2.6400	3.1835	3.9392
		24	2.1030	2.6207	3.1548	3.8951
		25	2.0922	2.6030	3.1287	3.8550
		30	2.0492	2.5336	3.0265	3.6990
		35	2.0191	2.4851	2.9557	3.5919
		40	1.9968	2.4495	2.9037	3.5138
		45	1.9796	2.4221	2.8640	3.4544
		50	1.9660	2.4004	2.8327	3.4077
		60	1.9457	2.3683	2.7863	3.3389
		70	1.9313	2.3456	2.7537	3.2907
		80	1.9206	2.3287	2.7295	3.2550
		100	1.9057	2.3053	2.6961	3.2059
		120	1.8959	2.2899	2.6740	3.1735
		150	1.8861	2.2745	2.6521	3.1416
		200	1.8763	2.2592	2.6304	3.1100
		500	1.8588	2.2320	2.5919	3.0540
		$+\infty$	1.8473	2.2141	2.5665	3.0173
	6	1	58.204	233.99	937.11	5859.0
		2	9.3255	19.330	39.331	99.333
		3	5.2847	8.9406	14.735	27.911
		4	4.0097	6.1631	9.1973	15.207
		5	3.4045	4.9503	6.9777	10.672
		6	3.0546	4.2839	5.8198	8.4661
		7	2.8274	3.8660	5.1186	7.1914
		8	2.6683	3.5806	4.6517	6.3707
		9	2.5509	3.3738	4.3197	5.8018
		10	2.4606	3.2172	4.0721	5.3858
		11	2.3891	3.0946	3.8807	5.0692
		12	2.3310	2.9961	3.7283	4.8206
		13	2.2830	2.9153	3.6043	4.6204
		14	2.2426	2.8477	3.5014	4.4558
		15	2.2081	2.7905	3.4147	4.3183
		16	2.1783	2.7413	3.3406	4.2016
		17	2.1524	2.6987	3.2767	4.1015
		18	2.1296	2.6613	3.2209	4.0146
		19	2.1094	2.6283	3.1718	3.9386
		20	2.0913	2.5990	3.1283	3.8714
		21	2.0751	2.5727	3.0895	3.8117

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$\nu_1$	$\nu_2$	0.9	0.95	0.975	0.99	0.995	$\nu_1$	$\nu_2$	0.9	0.95	0.975	0.99	0.995
6	22	2.0605	2.5491	3.0546	3.7583	4.3225	8	6	2.9830	4.1468	5.5996	8.1017	10.566
	23	2.0472	2.5277	3.0232	3.7102	4.2591		7	2.7516	3.7257	4.8993	6.8400	8.6781
	24	2.0351	2.5082	2.9946	3.6667	4.2019		8	2.5893	3.4381	4.4333	6.0289	7.4959
	25	2.0241	2.4904	2.9685	3.6272	4.1500		9	2.4694	3.2296	4.1020	5.4671	6.6933
	30	1.9803	2.4205	2.8667	3.4735	3.9492		10	2.3772	3.0717	3.8549	5.0567	6.1159
	35	1.9496	2.3718	2.7961	3.3679	3.8123		11	2.3040	2.9480	3.6638	4.7445	5.6821
	40	1.9269	2.3359	2.7444	3.2910	3.7129		12	2.2446	2.8486	3.5118	4.4994	5.3451
	45	1.9094	2.3083	2.7048	3.2325	3.6376		13	2.1953	2.7669	3.3880	4.3021	5.0761
	50	1.8954	2.2864	2.6736	3.1864	3.5785		14	2.1539	2.6987	3.2853	4.1399	4.8566
	60	1.8747	2.2541	2.6274	3.1187	3.4918		15	2.1185	2.6408	3.1987	4.0045	4.6744
	70	1.8600	2.2312	2.5949	3.0712	3.4313		16	2.0880	2.5911	3.1248	3.8896	4.5207
	80	1.8491	2.2142	2.5708	3.0361	3.3867		17	2.0613	2.5480	3.0610	3.7910	4.3894
	100	1.8339	2.1906	2.5374	2.9877	3.3252		18	2.0379	2.5102	3.0053	3.7054	4.2759
	120	1.8238	2.1750	2.5154	2.9559	3.2849		19	2.0171	2.4768	2.9563	3.6305	4.1770
	150	1.8138	2.1595	2.4936	2.9244	3.2452		20	1.9985	2.4471	2.9128	3.5644	4.0900
	200	1.8038	2.1441	2.4720	2.8933	3.2059		21	1.9819	2.4205	2.8740	3.5056	4.0128
	500	1.7859	2.1167	2.4335	2.8381	3.1366		22	1.9668	2.3965	2.8392	3.4530	3.9440
	$+\infty$	1.7741	2.0986	2.4082	2.8020	3.0913		23	1.9531	2.3748	2.8077	3.4057	3.8822
7	1	58.906	236.77	948.22	5928.4	23715	24	1.9407	2.3551	2.7791	3.3629	3.8264	
	2	9.3491	19.353	39.355	99.356	199.36		25	1.9292	2.3371	2.7531	3.3239	3.7758
	3	5.2662	8.8867	14.624	27.672	44.434		30	1.8841	2.2662	2.6513	3.1726	3.5801
	4	3.9790	6.0942	9.0741	14.976	21.622		35	1.8524	2.2167	2.5807	3.0687	3.4466
	5	3.3679	4.8759	6.8531	10.456	14.200		40	1.8289	2.1802	2.5289	2.9930	3.3498
	6	3.0145	4.2067	5.6955	8.2600	10.786		45	1.8107	2.1521	2.4892	2.9353	3.2764
	7	2.7849	3.7870	4.9949	6.9928	8.8854		50	1.7963	2.1299	2.4579	2.8900	3.2189
	8	2.6241	3.5005	4.5286	6.1776	7.6941		60	1.7748	2.0970	2.4117	2.8233	3.1344
	9	2.5053	3.2927	4.1970	5.6129	6.8849		70	1.7596	2.0737	2.3791	2.7765	3.0755
	10	2.4140	3.1355	3.9498	5.2001	6.3025		80	1.7483	2.0564	2.3549	2.7420	3.0320
	11	2.3416	3.0123	3.7586	4.8861	5.8648		100	1.7324	2.0323	2.3215	2.6943	2.9722
	12	2.2828	2.9134	3.6065	4.6395	5.5245		120	1.7220	2.0164	2.2994	2.6629	2.9330
	13	2.2341	2.8321	3.4827	4.4410	5.2529		150	1.7115	2.0006	2.2775	2.6319	2.8942
	14	2.1931	2.7642	3.3799	4.2779	5.0313		200	1.7011	1.9849	2.2558	2.6012	2.8560
	15	2.1582	2.7066	3.2934	4.1415	4.8473		500	1.6825	1.9569	2.2172	2.5469	2.7885
	16	2.1280	2.6572	3.2194	4.0259	4.6920		$+\infty$	1.6702	1.9384	2.1918	2.5113	2.7444
9	1	59.858	240.54	963.28	6022.5	24091	9	1	59.858	240.54	963.28	6022.5	24091
	2	9.3805	19.385	39.387	99.388	199.39		2	9.3805	19.385	39.387	99.388	199.39
	3	5.2400	8.8123	14.473	27.345	43.882		3	5.2400	8.8123	14.473	27.345	43.882
	4	3.9357	5.9988	8.9047	14.659	21.139		4	3.9357	5.9988	8.9047	14.659	21.139
	5	3.3163	4.7725	6.6811	10.158	13.772		5	3.3163	4.7725	6.6811	10.158	13.772
	6	2.9577	4.0990	5.5234	7.9761	10.391		6	2.9577	4.0990	5.5234	7.9761	10.391
	7	2.7247	3.6767	4.8232	6.7188	8.5138		7	2.7247	3.6767	4.8232	6.7188	8.5138
	8	2.5612	3.3881	4.3572	5.9106	7.3386		8	2.5612	3.3881	4.3572	5.9106	7.3386
	9	2.4403	3.1789	4.0260	5.3511	6.5411		9	2.4403	3.1789	4.0260	5.3511	6.5411
	10	2.3473	3.0204	3.7790	4.9424	5.9676		10	2.3473	3.0204	3.7790	4.9424	5.9676
	11	2.2735	2.8962	3.5879	4.6315	5.5368		11	2.2735	2.8962	3.5879	4.6315	5.5368
	12	2.2135	2.7964	3.4358	4.3875	5.2021		12	2.2135	2.7964	3.4358	4.3875	5.2021
	13	2.1638	2.7144	3.3120	4.1911	4.9351		13	2.1638	2.7144	3.3120	4.1911	4.9351
	14	2.1220	2.6458	3.2093	4.0297	4.7173		14	2.1220	2.6458	3.2093	4.0297	4.7173
	15	2.0862	2.5876	3.1227	3.8948	4.5364		15	2.0862	2.5876	3.1227	3.8948	4.5364
	16	2.0553	2.5377	3.0488	3.7804	4.3838		16	2.0553	2.5377	3.0488	3.7804	4.3838
	17	2.0284	2.4943	2.9849	3.6822	4.2535		17	2.0284	2.4943	2.9849	3.6822	4.2535
	18	2.0047	2.4563	2.9291	3.5971	4.1410		18	2.0047	2.4563	2.9291	3.5971	4.1410
	19	1.9836	2.4227	2.8801	3.5225	4.0428		19	1.9836	2.4227	2.8801	3.5225	4.0428
	20	1.9649	2.3928	2.8365	3.4567	3.9564		20	1.9649	2.3928	2.8365	3.4567	3.9564
	21	1.9480	2.3660	2.7977	3.3981	3.8799		21	1.9480	2.3660	2.7977	3.3981	3.8799
	22	1.9327	2.3419	2.7628	3.3458	3.8116		22	1.9327	2.3419	2.7628	3.3458	3.8116
	23	1.9189	2.3201	2.7313	3.2986	3.7502		23	1.9189	2.3201	2.7313	3.2986	3.7502
	24	1.9063	2.3002	2.7027	3.2560	3.6949		24	1.9063	2.3002	2.7027	3.2560	3.6949
	25	1.8947	2.2821	2.6766	3.2172	3.6447		25	1.8947	2.2821	2.6766	3.2172	3.6447
	30	1.8490	2.2107	2.5746	3.0665	3.4505		30	1.8490	2.2107	2.5746	3.0665	3.4505
	35	1.8168	2.1608	2.5039	2.9630	3.3180		35	1.8168	2.1608	2.5039	2.9630	3.3180
	40	1.7929	2.1240	2.4519	2.8876	3.2220		40	1.7929	2.1240	2.4519	2.8876	3.2220

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$\nu_1$	$\nu_2$	0.9	0.95	0.975	0.99	0.995
9	45	1.7745	2.0958	2.4122	2.8301	3.1492
	50	1.7598	2.0734	2.3808	2.7850	3.0920
	60	1.7380	2.0401	2.3344	2.7185	3.0083
	70	1.7225	2.0166	2.3017	2.6719	2.9498
	80	1.7110	1.9991	2.2775	2.6374	2.9066
	100	1.6949	1.9748	2.2439	2.5898	2.8472
	120	1.6842	1.9588	2.2217	2.5586	2.8083
	150	1.6736	1.9428	2.1998	2.5277	2.7698
	200	1.6630	1.9269	2.1780	2.4971	2.7319
	500	1.6441	1.8986	2.1392	2.4429	2.6649
	$+\infty$	1.6315	1.8799	2.1136	2.4073	2.6210
10	1	60.195	241.88	968.63	6055.8	24224
	2	9.3916	19.396	39.398	99.399	199.40
	3	5.2304	8.7855	14.419	27.229	43.686
	4	3.9199	5.9644	8.8439	14.546	20.967
	5	3.2974	4.7351	6.6192	10.051	13.618
	6	2.9369	4.0600	5.4613	7.8741	10.250
	7	2.7025	3.6365	4.7611	6.6201	8.3803
	8	2.5380	3.3472	4.2951	5.8143	7.2106
	9	2.4163	3.1373	3.9639	5.2565	6.4172
	10	2.3226	2.9782	3.7168	4.8491	5.8467
	11	2.2482	2.8536	3.5257	4.5393	5.4183
	12	2.1878	2.7534	3.3736	4.2961	5.0855
	13	2.1376	2.6710	3.2497	4.1003	4.8199
	14	2.0954	2.6022	3.1469	3.9394	4.6034
	15	2.0593	2.5437	3.0602	3.8049	4.4235
	16	2.0281	2.4935	2.9862	3.6909	4.2719
	17	2.0009	2.4499	2.9222	3.5931	4.1424
	18	1.9770	2.4117	2.8664	3.5082	4.0305
	19	1.9557	2.3779	2.8172	3.4338	3.9329
	20	1.9367	2.3479	2.7737	3.3682	3.8470
	21	1.9197	2.3210	2.7348	3.3098	3.7709
	22	1.9043	2.2967	2.6998	3.2576	3.7030
	23	1.8903	2.2747	2.6682	3.2106	3.6420
	24	1.8775	2.2547	2.6396	3.1681	3.5870
	25	1.8658	2.2365	2.6135	3.1294	3.5370
	30	1.8195	2.1646	2.5112	2.9791	3.3440
	35	1.7869	2.1143	2.4403	2.8758	3.2123
	40	1.7627	2.0772	2.3882	2.8005	3.1167
	45	1.7440	2.0487	2.3483	2.7432	3.0443
	50	1.7291	2.0261	2.3168	2.6981	2.9875
	60	1.7070	1.9926	2.2702	2.6318	2.9042
	70	1.6913	1.9689	2.2374	2.5852	2.8460
	80	1.6796	1.9512	2.2130	2.5508	2.8031
	100	1.6632	1.9267	2.1793	2.5033	2.7440
	120	1.6524	1.9105	2.1570	2.4721	2.7052
	150	1.6416	1.8943	2.1349	2.4412	2.6669
	200	1.6308	1.8783	2.1130	2.4106	2.6292
	500	1.6115	1.8496	2.0740	2.3565	2.5625
	$+\infty$	1.5987	1.8307	2.0483	2.3209	2.5188
11	1	60.473	242.98	973.03	6083.3	24334
	2	9.4006	19.405	39.407	99.408	199.41
	3	5.2224	8.7633	14.374	27.133	43.524
	4	3.9067	5.9358	8.7935	14.452	20.824
	5	3.2816	4.7040	6.5678	9.9626	13.491
	6	2.9195	4.0274	5.4098	7.7896	10.133
	7	2.6839	3.6030	4.7095	6.5382	8.2697
	8	2.5186	3.3130	4.2434	5.7343	7.1045
	9	2.3961	3.1025	3.9121	5.1779	6.3142
	10	2.3018	2.9430	3.6649	4.7715	5.7462
	11	2.2269	2.8179	3.4737	4.4624	5.3197
	12	2.1660	2.7173	3.3215	4.2198	4.9884

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$\nu_1$	$\nu_2$	0.9	0.95	0.975	0.99	0.995
11	13	2.1155	2.6347	3.1975	4.0245	4.7240
	14	2.0729	2.5655	3.0946	3.8640	4.5085
	15	2.0366	2.5068	3.0078	3.7299	4.3295
	16	2.0051	2.4564	2.9337	3.6162	4.1785
	17	1.9777	2.4126	2.8696	3.5185	4.0496
	18	1.9535	2.3742	2.8137	3.4338	3.9382
	19	1.9321	2.3402	2.7645	3.3596	3.8410
	20	1.9129	2.3100	2.7209	3.2941	3.7555
	21	1.8956	2.2829	2.6819	3.2359	3.6798
	22	1.8801	2.2585	2.6469	3.1837	3.6122
	23	1.8659	2.2364	2.6152	3.1368	3.5515
	24	1.8530	2.2163	2.5865	3.0944	3.4967
	25	1.8412	2.1979	2.5603	3.0558	3.4470
	30	1.7944	2.1256	2.4577	2.9057	3.2547
	35	1.7614	2.0750	2.3866	2.8026	3.1236
	40	1.7369	2.0376	2.3343	2.7274	3.0284
	45	1.7180	2.0088	2.2943	2.6701	2.9563
	50	1.7029	1.9861	2.2627	2.6250	2.8997
	60	1.6805	1.9522	2.2159	2.5587	2.8166
	70	1.6645	1.9283	2.1829	2.5122	2.7587
	80	1.6526	1.9105	2.1584	2.4777	2.7159
	100	1.6360	1.8857	2.1245	2.4302	2.6570
	120	1.6250	1.8693	2.1021	2.3990	2.6183
	150	1.6140	1.8530	2.0799	2.3681	2.5802
	200	1.6031	1.8368	2.0578	2.3375	2.5425
	500	1.5835	1.8078	2.0186	2.2833	2.4760
	$+\infty$	1.5705	1.7886	1.9927	2.2477	2.4324
12	1	60.705	243.91	976.71	6106.3	24426
	2	9.4081	19.413	39.415	99.416	199.42
	3	5.2156	8.7446	14.337	27.052	43.387
	4	3.8955	5.9117	8.7512	14.374	20.705
	5	3.2682	4.6777	6.5245	9.8883	13.384
	6	2.9047	3.9999	5.3662	7.7183	10.034
	7	2.6681	3.5747	4.6658	6.4691	8.1764
	8	2.5020	3.2839	4.1997	5.6667	7.0149
	9	2.3789	3.0729	3.8682	5.1114	6.2274
	10	2.2841	2.9130	3.6209	4.7059	5.6613
	11	2.2087	2.7876	3.4296	4.3974	5.2363
	12	2.1474	2.6866	3.2773	4.1553	4.9062
	13	2.0966	2.6037	3.1532	3.9603	4.6429
	14	2.0537	2.5342	3.0502	3.8001	4.4281
	15	2.0171	2.4753	2.9633	3.6662	4.2497
	16	1.9854	2.4247	2.8890	3.5527	4.0994
	17	1.9577	2.3807	2.8249	3.4552	3.9709
	18	1.9333	2.3421	2.7689	3.3706	3.8599
	19	1.9117	2.3080	2.7196	3.2965	3.7631
	20	1.8924	2.2776	2.6758	3.2311	3.6779
	21	1.8750	2.2504	2.6368	3.1730	3.6024
	22	1.8593	2.2258	2.6017	3.1209	3.5350
	23	1.8450	2.2036	2.5699	3.0740	3.4745
	24	1.8319	2.1834	2.5411	3.0316	3.4199
	25	1.8200	2.1649	2.5149	2.9931	3.3704
	30	1.7727	2.0921	2.4120	2.8431	3.1787
	35	1.7394	2.0411	2.3406	2.7400	3.0480
	40	1.7146	2.0035	2.2882	2.6648	2.9531
	45	1.6954	1.9745	2.2480	2.6076	2.8811
	50	1.6802	1.9515	2.2162	2.5625	2.8247
	60	1.6574	1.9174	2.1692	2.4961	2.7419
	70	1.6413	1.8932	2.1361	2.4496	2.6840
	80	1.6292	1.8753	2.1115	2.4151	2.6413
	100	1.6124	1.8503	2.0773	2.3676	2.5825
	120	1.6012	1.8337	2.0548	2.3363	2.5439

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$\nu_1$	$\nu_2$	0.9	0.95	0.975	0.99	0.995
12	150	1.5901	1.8172	2.0325	2.3053	2.5059
	200	1.5789	1.8008	2.0103	2.2747	2.4683
	500	1.5590	1.7715	1.9708	2.2204	2.4018
	$+\infty$	1.5458	1.7522	1.9447	2.1847	2.3583
13	1	60.903	244.69	979.84	6125.9	24505
	2	9.4145	19.419	39.421	99.422	199.42
	3	5.2098	8.7287	14.304	26.983	43.271
	4	3.8859	5.8911	8.7150	14.307	20.603
	5	3.2567	4.6552	6.4876	9.8248	13.293
	6	2.8920	3.9764	5.3290	7.6575	9.9501
	7	2.6545	3.5503	4.6285	6.4100	8.0967
	8	2.4876	3.2590	4.1622	5.6089	6.9384
	9	2.3640	3.0475	3.8306	5.0545	6.1530
	10	2.2687	2.8872	3.5832	4.6496	5.5887
	11	2.1930	2.7614	3.3917	4.3416	5.1649
	12	2.1313	2.6602	3.2393	4.0999	4.8358
	13	2.0802	2.5769	3.1150	3.9052	4.5733
	14	2.0370	2.5073	3.0119	3.7452	4.3591
	15	2.0001	2.4481	2.9249	3.6115	4.1813
	16	1.9682	2.3973	2.8506	3.4981	4.0314
	17	1.9404	2.3531	2.7863	3.4007	3.9033
	18	1.9158	2.3143	2.7302	3.3162	3.7926
	19	1.8940	2.2800	2.6808	3.2422	3.6961
	20	1.8745	2.2495	2.6369	3.1769	3.6111
	21	1.8570	2.2222	2.5978	3.1187	3.5358
	22	1.8411	2.1975	2.5626	3.0667	3.4686
	23	1.8267	2.1752	2.5308	3.0199	3.4083
	24	1.8136	2.1548	2.5019	2.9775	3.3538
	25	1.8015	2.1362	2.4756	2.9389	3.3044
	30	1.7538	2.0630	2.3724	2.7890	3.1132
	35	1.7201	2.0117	2.3008	2.6859	2.9827
	40	1.6950	1.9738	2.2481	2.6107	2.8880
	45	1.6757	1.9446	2.2078	2.5534	2.8162
	50	1.6602	1.9214	2.1758	2.5083	2.7599
	60	1.6372	1.8870	2.1286	2.4419	2.6771
	70	1.6209	1.8627	2.0953	2.3953	2.6193
	80	1.6086	1.8445	2.0706	2.3608	2.5767
	100	1.5916	1.8193	2.0363	2.3132	2.5180
	120	1.5803	1.8026	2.0136	2.2818	2.4794
	150	1.5690	1.7859	1.9911	2.2508	2.4413
	200	1.5577	1.7694	1.9688	2.2201	2.4038
	500	1.5374	1.7398	1.9290	2.1656	2.3373
	$+\infty$	1.5240	1.7202	1.9027	2.1299	2.2938
14	1	61.073	245.36	982.53	6142.7	24572
	2	9.4200	19.424	39.427	99.428	199.43
	3	5.2047	8.7149	14.277	26.924	43.172
	4	3.8776	5.8733	8.6838	14.249	20.515
	5	3.2468	4.6358	6.4556	9.7700	13.215
	6	2.8809	3.9559	5.2968	7.6049	9.8774
	7	2.6426	3.5292	4.5961	6.3590	8.0279
	8	2.4752	3.2374	4.1297	5.5589	6.8721
	9	2.3510	3.0255	3.7980	5.0052	6.0887
	10	2.2553	2.8647	3.5504	4.6008	5.5257
	11	2.1792	2.7386	3.3588	4.2932	5.1031
	12	2.1173	2.6371	3.2062	4.0518	4.7748
	13	2.0658	2.5536	3.0819	3.8573	4.5129
	14	2.0224	2.4837	2.9786	3.6975	4.2993
	15	1.9853	2.4244	2.8915	3.5639	4.1219
	16	1.9532	2.3733	2.8170	3.4506	3.9723
	17	1.9252	2.3290	2.7526	3.3533	3.8445
	18	1.9004	2.2900	2.6964	3.2689	3.7341
	19	1.8785	2.2556	2.6469	3.1949	3.6378

$\nu_1$	$\nu_2$	0.9	0.95	0.975	0.99	0.995
14	14	20	1.8588	2.2250	2.6030	3.1296
	21	1.8412	2.1975	2.5638	3.0715	3.4779
	22	1.8252	2.1727	2.5285	3.0195	3.4108
	23	1.8107	2.1502	2.4966	2.9727	3.3506
	24	1.7974	2.1298	2.4677	2.9303	3.2962
	25	1.7853	2.1111	2.4413	2.8917	3.2469
	30	1.7371	2.0374	2.3378	2.7418	3.0560
	35	1.7031	1.9858	2.2659	2.6387	2.9258
	40	1.6778	1.9476	2.2130	2.5634	2.8312
	45	1.6582	1.9182	2.1725	2.5060	2.7595
	50	1.6426	1.8949	2.1404	2.4609	2.7032
	60	1.6193	1.8602	2.0929	2.3943	2.6205
	70	1.6028	1.8357	2.0595	2.3477	2.5627
	80	1.5904	1.8174	2.0346	2.3131	2.5201
	100	1.5731	1.7919	2.0001	2.2654	2.4614
	120	1.5617	1.7750	1.9773	2.2339	2.4228
	150	1.5502	1.7582	1.9546	2.2028	2.3847
	200	1.5388	1.7415	1.9322	2.1721	2.3472
	500	1.5182	1.7116	1.8921	2.1174	2.2806
	$+\infty$	1.5046	1.6918	1.8656	2.0815	2.2371
15	15	1	61.220	245.95	984.87	6157.3
	2	9.4247	19.429	39.431	99.433	199.43
	3	5.2003	8.7029	14.253	26.872	43.085
	4	3.8704	5.8578	8.6565	14.198	20.438
	5	3.2380	4.6188	6.4277	9.7222	13.146
	6	2.8712	3.9381	5.2687	7.5590	9.8140
	7	2.6322	3.5107	4.5678	6.3143	7.9678
	8	2.4642	3.2184	4.1012	5.5151	6.8143
	9	2.3396	3.0061	3.7694	4.9621	6.0325
	10	2.2435	2.8450	3.5217	4.5581	5.4707
	11	2.1671	2.7186	3.3299	4.2509	5.0489
	12	2.1049	2.6169	3.1772	4.0096	4.7213
	13	2.0532	2.5331	3.0527	3.8154	4.4600
	14	2.0095	2.4630	2.9493	3.6557	4.2468
	15	1.9722	2.4034	2.8621	3.5222	4.0698
	16	1.9399	2.3522	2.7875	3.4089	3.9205
	17	1.9117	2.3077	2.7230	3.3117	3.7929
	18	1.8868	2.2686	2.6667	3.2273	3.6827
	19	1.8647	2.2341	2.6171	3.1533	3.5866
	20	1.8449	2.2033	2.5731	3.0880	3.5020
	21	1.8271	2.1757	2.5338	3.0300	3.4270
	22	1.8111	2.1508	2.4984	2.9779	3.3600
	23	1.7964	2.1282	2.4665	2.9311	3.2999
	24	1.7831	2.1077	2.4374	2.8887	3.2456
	25	1.7708	2.0889	2.4110	2.8502	3.1963
	30	1.7223	2.0148	2.3072	2.7002	3.0057
	35	1.6880	1.9629	2.2350	2.5970	2.8756
	40	1.6624	1.9245	2.1819	2.5216	2.7811
	45	1.6426	1.8949	2.1412	2.4642	2.7094
	50	1.6269	1.8714	2.1090	2.4190	2.6531
	60	1.6034	1.8364	2.0613	2.3523	2.5705
	70	1.5866	1.8117	2.0277	2.3055	2.5127
	80	1.5741	1.7932	2.0026	2.2709	2.4700
	100	1.5566	1.7675	1.9679	2.2230	2.4113
	120	1.5450	1.7505	1.9450	2.1915	2.3727
	150	1.5334	1.7335	1.9222	2.1603	2.3346
	200	1.5218	1.7166	1.8996	2.1294	2.2970
	500	1.5010	1.6864	1.8592	2.0746	2.2304
	$+\infty$	1.4871	1.6664	1.8326	2.0385	2.1868
16	16	1	61.350	246.46	986.92	6170.1
	2	9.4289	19.433	39.435	99.437	199.44
	3	5.1964	8.6923	14.232	26.827	43.008

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$\nu_1$	$\nu_2$	0.9	0.95	0.975	0.99	0.995	$\nu_1$	$\nu_2$	0.9	0.95	0.975	0.99	0.995	
16	4	3.8639	5.8441	8.6326	14.154	20.371	17	35	1.6622	1.9240	2.1828	2.5266	2.7911	
	5	3.2303	4.6038	6.4032	9.6802	13.086		40	1.6362	1.8851	2.1293	2.4511	2.6966	
	6	2.8626	3.9223	5.2439	7.5186	9.7582		45	1.6161	1.8551	2.0883	2.3935	2.6249	
	7	2.6230	3.4944	4.5428	6.2750	7.9148		50	1.6000	1.8313	2.0558	2.3481	2.5686	
	8	2.4545	3.2016	4.0761	5.4766	6.7633		60	1.5760	1.7959	2.0076	2.2811	2.4859	
	9	2.3295	2.9890	3.7441	4.9240	5.9829		70	1.5589	1.7708	1.9736	2.2341	2.4281	
	10	2.2330	2.8276	3.4963	4.5204	5.4221		80	1.5461	1.7520	1.9483	2.1993	2.3854	
	11	2.1563	2.7009	3.3044	4.2134	5.0011		100	1.5283	1.7259	1.9132	2.1511	2.3265	
	12	2.0938	2.5989	3.1515	3.9724	4.6741		120	1.5164	1.7085	1.8900	2.1194	2.2878	
	13	2.0419	2.5149	3.0269	3.7783	4.4132		150	1.5045	1.6913	1.8669	2.0880	2.2496	
	14	1.9981	2.4446	2.9234	3.6187	4.2005		200	1.4926	1.6741	1.8440	2.0569	2.2118	
	15	1.9605	2.3849	2.8360	3.4852	4.0237		500	1.4712	1.6432	1.8030	2.0016	2.1449	
	16	1.9281	2.3335	2.7614	3.3720	3.8747		$+\infty$	1.4570	1.6228	1.7759	1.9652	2.1011	
	17	1.8997	2.2888	2.6968	3.2748	3.7473		18	1	61.566	247.32	990.35	6191.5	24767
	18	1.8747	2.2496	2.6404	3.1904	3.6373		2	9.4358	19.440	39.442	99.444	199.44	
	19	1.8524	2.2149	2.5907	3.1165	3.5412		3	5.1898	8.6745	14.196	26.751	42.880	
	20	1.8325	2.1840	2.5465	3.0512	3.4568		4	3.8531	5.8211	8.5924	14.080	20.258	
	21	1.8146	2.1563	2.5071	2.9931	3.3818		5	3.2172	4.5785	6.3619	9.6096	12.985	
	22	1.7984	2.1313	2.4717	2.9411	3.3150		6	2.8481	3.8957	5.2021	7.4507	9.6644	
	23	1.7837	2.1086	2.4396	2.8943	3.2549		7	2.6074	3.4669	4.5008	6.2089	7.8258	
	24	1.7703	2.0880	2.4105	2.8519	3.2007		8	2.4380	3.1733	4.0338	5.4116	6.6775	
	25	1.7579	2.0691	2.3840	2.8133	3.1515		9	2.3123	2.9600	3.7015	4.8599	5.8994	
	30	1.7090	1.9946	2.2799	2.6632	2.9611		10	2.2153	2.7980	3.4534	4.4569	5.3403	
	35	1.6744	1.9424	2.2075	2.5599	2.8310		11	2.1380	2.6709	3.2612	4.1503	4.9205	
	40	1.6486	1.9037	2.1542	2.4844	2.7365		12	2.0750	2.5684	3.1081	3.9095	4.5945	
	45	1.6287	1.8740	2.1133	2.4269	2.6648		13	2.0227	2.4841	2.9832	3.7156	4.3344	
	50	1.6128	1.8503	2.0810	2.3816	2.6086		14	1.9785	2.4134	2.8795	3.5561	4.1221	
	60	1.5890	1.8151	2.0330	2.3148	2.5259		15	1.9407	2.3533	2.7919	3.4228	3.9459	
	70	1.5721	1.7902	1.9992	2.2679	2.4681		16	1.9079	2.3016	2.7170	3.3096	3.7972	
	80	1.5594	1.7716	1.9741	2.2332	2.4254		17	1.8792	2.2567	2.6522	3.2124	3.6701	
	100	1.5418	1.7456	1.9391	2.1852	2.3666		18	1.8539	2.2172	2.5956	3.1280	3.5603	
	120	1.5300	1.7285	1.9161	2.1536	2.3280		19	1.8314	2.1823	2.5457	3.0541	3.4645	
	150	1.5182	1.7113	1.8931	2.1223	2.2898		20	1.8113	2.1511	2.5014	2.9887	3.3802	
	200	1.5065	1.6943	1.8704	2.0913	2.2521		21	1.7932	2.1232	2.4618	2.9306	3.3054	
	500	1.4854	1.6638	1.8297	2.0362	2.1854		22	1.7768	2.0980	2.4262	2.8786	3.2387	
	$+\infty$	1.4714	1.6435	1.8028	2.0000	2.1417		23	1.7619	2.0751	2.3940	2.8317	3.1787	
17	1	61.464	246.92	988.73	6181.4	24727		24	1.7483	2.0543	2.3648	2.7892	3.1246	
	2	9.4325	19.437	39.439	99.440	199.44		25	1.7358	2.0353	2.3381	2.7506	3.0754	
	3	5.1929	8.6829	14.213	26.787	42.941		30	1.6862	1.9601	2.2334	2.6003	2.8852	
	4	3.8582	5.8320	8.6113	14.115	20.311		35	1.6511	1.9073	2.1605	2.4967	2.7551	
	5	3.2234	4.5904	6.3814	9.6429	13.033		40	1.6249	1.8682	2.1068	2.4210	2.6607	
	6	2.8550	3.9083	5.2218	7.4827	9.7086		45	1.6046	1.8381	2.0656	2.3633	2.5889	
	7	2.6148	3.4799	4.5206	6.2401	7.8678		50	1.5884	1.8141	2.0330	2.3178	2.5326	
	8	2.4458	3.1867	4.0538	5.4423	6.7180		60	1.5642	1.7784	1.9846	2.2507	2.4498	
	9	2.3205	2.9737	3.7216	4.8902	5.9388		70	1.5470	1.7531	1.9504	2.2036	2.3919	
	10	2.2237	2.8120	3.4737	4.4869	5.3789		80	1.5340	1.7342	1.9250	2.1686	2.3492	
	11	2.1467	2.6851	3.2816	4.1801	4.9586		100	1.5160	1.7079	1.8897	2.1203	2.2902	
	12	2.0839	2.5828	3.1286	3.9392	4.6321		120	1.5039	1.6904	1.8663	2.0885	2.2514	
	13	2.0318	2.4987	3.0039	3.7452	4.3716		150	1.4919	1.6730	1.8431	2.0570	2.2131	
	14	1.9878	2.4282	2.9003	3.5857	4.1592		200	1.4799	1.6556	1.8200	2.0257	2.1753	
	15	1.9501	2.3683	2.8128	3.4523	3.9827		500	1.4583	1.6245	1.7787	1.9702	2.1082	
	16	1.9175	2.3167	2.7380	3.3391	3.8338		$+\infty$	1.4439	1.6038	1.7515	1.9336	2.0642	
	17	1.8889	2.2719	2.6733	3.2419	3.7066		19	1	61.658	247.69	991.80	6200.6	24803
	18	1.8638	2.2325	2.6168	3.1575	3.5967		2	9.4387	19.443	39.445	99.447	199.45	
	19	1.8414	2.1977	2.5670	3.0836	3.5008		3	5.1870	8.6670	14.181	26.719	42.826	
	20	1.8214	2.1667	2.5228	3.0183	3.4164		4	3.8485	5.8114	8.5753	14.048	20.210	
	21	1.8034	2.1389	2.4833	2.9602	3.3416		5	3.2117	4.5678	6.3444	9.5797	12.942	
	22	1.7871	2.1138	2.4478	2.9082	3.2748		6	2.8419	3.8844	5.1844	7.4219	9.6247	
	23	1.7723	2.0910	2.4157	2.8613	3.2148		7	2.6008	3.4551	4.4829	6.1808	7.7881	
	24	1.7587	2.0703	2.3865	2.8189	3.1606		8	2.4310	3.1613	4.0158	5.3840	6.6411	
	25	1.7463	2.0513	2.3599	2.7803	3.1114		9	2.3050	2.9477	3.6833	4.8327	5.8639	
	30	1.6970	1.9765	2.2554	2.6301	2.9211		10	2.2077	2.7854	3.4351	4.4299	5.3055	

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$\nu_1$	$\nu_2$	0.9	0.95	0.975	0.99	0.995
19	11	2.1302	2.6581	3.2428	4.1234	4.8863
	12	2.0670	2.5554	3.0896	3.8827	4.5606
	13	2.0145	2.4709	2.9646	3.6888	4.3008
	14	1.9701	2.4000	2.8607	3.5294	4.0888
	15	1.9321	2.3398	2.7730	3.3961	3.9127
	16	1.8992	2.2880	2.6980	3.2829	3.7641
	17	1.8704	2.2429	2.6331	3.1857	3.6372
	18	1.8450	2.2033	2.5764	3.1013	3.5275
	19	1.8224	2.1683	2.5265	3.0274	3.4318
	20	1.8022	2.1370	2.4821	2.9620	3.3475
	21	1.7840	2.1090	2.4424	2.9039	3.2728
	22	1.7675	2.0837	2.4067	2.8518	3.2060
	23	1.7525	2.0608	2.3745	2.8049	3.1461
	24	1.7388	2.0399	2.3452	2.7624	3.0920
	25	1.7263	2.0207	2.3184	2.7238	3.0429
	30	1.6763	1.9452	2.2134	2.5732	2.8526
	35	1.6410	1.8922	2.1403	2.4695	2.7226
	40	1.6146	1.8529	2.0864	2.3937	2.6281
	45	1.5941	1.8226	2.0450	2.3359	2.5563
	50	1.5778	1.7985	2.0122	2.2903	2.4999
	60	1.5534	1.7625	1.9636	2.2230	2.4171
	70	1.5360	1.7371	1.9293	2.1758	2.3591
	80	1.5230	1.7180	1.9037	2.1408	2.3163
	100	1.5047	1.6915	1.8682	2.0923	2.2572
	120	1.4926	1.6739	1.8447	2.0604	2.2183
	150	1.4804	1.6563	1.8213	2.0287	2.1800
	200	1.4683	1.6388	1.7981	1.9973	2.1420
	500	1.4464	1.6074	1.7566	1.9415	2.0748
	$+\infty$	1.4318	1.5865	1.7291	1.9048	2.0306

$\nu_1$	$\nu_2$	0.9	0.95	0.975	0.99	0.995
20	100	1.4943	1.6764	1.8486	2.0666	2.2270
	120	1.4821	1.6587	1.8249	2.0346	2.1881
	150	1.4698	1.6410	1.8014	2.0028	2.1496
	200	1.4575	1.6233	1.7780	1.9713	2.1116
	500	1.4354	1.5916	1.7362	1.9152	2.0441
	$+\infty$	1.4206	1.5705	1.7085	1.8783	1.9998
21	1	61.815	248.31	994.29	6216.1	24866
	2	9.4437	19.448	39.450	99.452	199.45
	3	5.1822	8.6540	14.155	26.664	42.733
	4	3.8405	5.7945	8.5460	13.994	20.128
	5	3.2021	4.5493	6.3142	9.5281	12.868
	6	2.8312	3.8649	5.1538	7.3722	9.5562
	7	2.5892	3.4349	4.4520	6.1324	7.7230
	8	2.4188	3.1404	3.9846	5.3364	6.5783
	9	2.2922	2.9263	3.6520	4.7856	5.8027
	10	2.1944	2.7636	3.4035	4.3831	5.2454
	11	2.1165	2.6358	3.2109	4.0769	4.8270
	12	2.0530	2.5328	3.0575	3.8363	4.5020
	13	2.0001	2.4479	2.9322	3.6425	4.2426
	14	1.9555	2.3768	2.8282	3.4832	4.0310
	15	1.9172	2.3163	2.7403	3.3498	3.8552
	16	1.8840	2.2642	2.6651	3.2367	3.7069
	17	1.8550	2.2189	2.6000	3.1394	3.5801
	18	1.8294	2.1791	2.5431	3.0550	3.4705
	19	1.8066	2.1438	2.4930	2.9810	3.3749
	20	1.7862	2.1124	2.4484	2.9156	3.2907
	21	1.7678	2.0842	2.4086	2.8574	3.2160
	22	1.7512	2.0587	2.3728	2.8052	3.1494
	23	1.7360	2.0356	2.3404	2.7583	3.0895
20	24	1.7222	2.0146	2.3109	2.7157	3.0354
	25	1.7095	1.9953	2.2840	2.6770	2.9862
	30	1.6590	1.9192	2.1785	2.5262	2.7960
	35	1.6232	1.8657	2.1049	2.4222	2.6659
	40	1.5965	1.8260	2.0506	2.3461	2.5713
	45	1.5757	1.7953	2.0089	2.2880	2.4994
	50	1.5592	1.7709	1.9759	2.2423	2.4429
	60	1.5343	1.7346	1.9269	2.1747	2.3598
	70	1.5166	1.7088	1.8922	2.1271	2.3017
	80	1.5034	1.6895	1.8664	2.0919	2.2587
	100	1.4848	1.6626	1.8305	2.0431	2.1993
	120	1.4724	1.6447	1.8067	2.0109	2.1603
	150	1.4600	1.6268	1.7830	1.9790	2.1218
	200	1.4476	1.6090	1.7595	1.9474	2.0836
	500	1.4252	1.5770	1.7174	1.8910	2.0159
	$+\infty$	1.4102	1.5557	1.6895	1.8539	1.9715
22	1	61.883	248.58	995.36	6222.8	24892
	2	9.4458	19.450	39.452	99.454	199.45
	3	5.1801	8.6484	14.144	26.640	42.693
	4	3.8371	5.7872	8.5332	13.970	20.093
	5	3.1979	4.5413	6.3011	9.5058	12.836
	6	2.8266	3.8564	5.1406	7.3506	9.5264
	7	2.5842	3.4260	4.4386	6.1113	7.6947
	8	2.4135	3.1313	3.9711	5.3157	6.5510
	9	2.2867	2.9169	3.6383	4.7651	5.7760
	10	2.1887	2.7541	3.3897	4.3628	5.2192
	11	2.1106	2.6261	3.1970	4.0566	4.8012
	12	2.0469	2.5229	3.0434	3.8161	4.4765
	13	1.9939	2.4379	2.9181	3.6224	4.2173
	14	1.9490	2.3667	2.8139	3.4630	4.0058
	15	1.9106	2.3060	2.7260	3.3297	3.8301
	16	1.8774	2.2538	2.6507	3.2165	3.6819
	17	1.8482	2.2084	2.5855	3.1192	3.5552

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$\nu_1$	$\nu_2$	0.9	0.95	0.975	0.99	0.995	$\nu_1$	$\nu_2$	0.9	0.95	0.975	0.99	0.995	
22	18	1.8225	2.1685	2.5285	3.0348	3.4456	24	2	9.4496	19.454	39.456	99.458	199.46	
	19	1.7997	2.1331	2.4783	2.9607	3.3500		3	5.1764	8.6385	14.124	26.598	42.622	
	20	1.7792	2.1016	2.4337	2.8953	3.2659		4	3.8310	5.7744	8.5109	13.929	20.030	
	21	1.7607	2.0733	2.3938	2.8370	3.1912		5	3.1905	4.5272	6.2780	9.4665	12.780	
	22	1.7440	2.0478	2.3579	2.7849	3.1246		6	2.8183	3.8415	5.1172	7.3127	9.4742	
	23	1.7288	2.0246	2.3254	2.7378	3.0647		7	2.5753	3.4105	4.4150	6.0743	7.6450	
	24	1.7149	2.0035	2.2959	2.6953	3.0106		8	2.4041	3.1152	3.9472	5.2793	6.5029	
	25	1.7021	1.9842	2.2690	2.6565	2.9615		9	2.2768	2.9005	3.6142	4.7290	5.7292	
	30	1.6514	1.9077	2.1631	2.5055	2.7712		10	2.1784	2.7372	3.3654	4.3269	5.1732	
	35	1.6154	1.8540	2.0893	2.4014	2.6410		11	2.1000	2.6090	3.1725	4.0209	4.7557	
	40	1.5884	1.8141	2.0349	2.3252	2.5463		12	2.0360	2.5055	3.0187	3.7805	4.4314	
	45	1.5676	1.7833	1.9930	2.2670	2.4744		13	1.9827	2.4202	2.8932	3.5868	4.1726	
	50	1.5509	1.7588	1.9599	2.2211	2.4178		14	1.9377	2.3487	2.7888	3.4274	3.9614	
	60	1.5259	1.7222	1.9106	2.1533	2.3346		15	1.8990	2.2878	2.7006	3.2940	3.7859	
	70	1.5080	1.6962	1.8758	2.1057	2.2764		16	1.8656	2.2354	2.6252	3.1808	3.6378	
	80	1.4947	1.6768	1.8499	2.0703	2.2333		17	1.8362	2.1898	2.5598	3.0835	3.5112	
	100	1.4759	1.6497	1.8138	2.0214	2.1738		18	1.8103	2.1497	2.5027	2.9990	3.4017	
	120	1.4634	1.6317	1.7899	1.9891	2.1347		19	1.7873	2.1141	2.4523	2.9249	3.3062	
	150	1.4509	1.6137	1.7661	1.9570	2.0961		20	1.7667	2.0825	2.4076	2.8594	3.2220	
	200	1.4383	1.5958	1.7424	1.9252	2.0578		21	1.7481	2.0540	2.3675	2.8010	3.1474	
	500	1.4157	1.5635	1.7000	1.8686	1.9899		22	1.7312	2.0283	2.3315	2.7488	3.0807	
	$+\infty$	1.4006	1.5420	1.6719	1.8313	1.9453		23	1.7159	2.0050	2.2989	2.7017	3.0208	
23	1	61.945	248.83	996.35	6229.0	24917		24	1.7019	1.9838	2.2693	2.6591	2.9667	
	2	9.4478	19.452	39.454	99.456	199.46		25	1.6890	1.9643	2.2422	2.6203	2.9176	
	3	5.1781	8.6432	14.134	26.618	42.656		30	1.6377	1.8874	2.1359	2.4689	2.7272	
	4	3.8339	5.7805	8.5216	13.949	20.060		35	1.6013	1.8332	2.0617	2.3645	2.5969	
	5	3.1941	4.5339	6.2891	9.4853	12.807		40	1.5741	1.7929	2.0069	2.2880	2.5020	
	6	2.8223	3.8486	5.1284	7.3309	9.4992		45	1.5530	1.7618	1.9647	2.2296	2.4299	
	7	2.5796	3.4179	4.4263	6.0921	7.6688		50	1.5361	1.7371	1.9313	2.1835	2.3732	
	8	2.4086	3.1229	3.9587	5.2967	6.5260		60	1.5107	1.7001	1.8817	2.1154	2.2898	
	9	2.2816	2.9084	3.6257	4.7463	5.7516		70	1.4926	1.6738	1.8466	2.0674	2.2313	
	10	2.1833	2.7453	3.3770	4.3441	5.1953		80	1.4790	1.6542	1.8204	2.0318	2.1881	
	11	2.1051	2.6172	3.1843	4.0380	4.7775		100	1.4600	1.6267	1.7839	1.9826	2.1283	
	12	2.0412	2.5139	3.0306	3.7976	4.4530		120	1.4472	1.6084	1.7597	1.9500	2.0890	
	13	1.9881	2.4287	2.9052	3.6038	4.1940		150	1.4345	1.5902	1.7356	1.9177	2.0501	
	14	1.9431	2.3573	2.8009	3.4445	3.9827		200	1.4217	1.5720	1.7117	1.8857	2.0116	
	15	1.9046	2.2966	2.7128	3.3111	3.8071		500	1.3986	1.5392	1.6687	1.8285	1.9432	
	16	1.8712	2.2443	2.6374	3.1979	3.6589		$+\infty$	1.3832	1.5173	1.6402	1.7908	1.8983	
	17	1.8420	2.1987	2.5721	3.1006	3.5323		25	1	62.055	249.26	998.08	6239.8	24960
	18	1.8162	2.1587	2.5151	3.0161	3.4228			2	9.4513	19.456	39.458	99.459	199.46
	19	1.7932	2.1233	2.4648	2.9421	3.3272			3	5.1747	8.6341	14.115	26.579	42.591
	20	1.7727	2.0917	2.4201	2.8766	3.2431			4	3.8283	5.7687	8.5010	13.911	20.002
	21	1.7541	2.0633	2.3801	2.8183	3.1684			5	3.1873	4.5209	6.2679	9.4491	12.755
	22	1.7374	2.0377	2.3442	2.7661	3.1018			6	2.8147	3.8348	5.1069	7.2960	9.4511
	23	1.7221	2.0144	2.3116	2.7191	3.0419			7	2.5714	3.4036	4.4045	6.0580	7.6230
	24	1.7081	1.9932	2.2821	2.6765	2.9878			8	2.3999	3.1081	3.9367	5.2631	6.4817
	25	1.6953	1.9738	2.2551	2.6377	2.9387			9	2.2725	2.8932	3.6035	4.7130	5.7084
	30	1.6443	1.8972	2.1490	2.4865	2.7483			10	2.1739	2.7298	3.3546	4.3111	5.1528
	35	1.6081	1.8432	2.0750	2.3822	2.6181			11	2.0953	2.6014	3.1616	4.0051	4.7356
	40	1.5810	1.8031	2.0203	2.3059	2.5233			12	2.0312	2.4977	3.0077	3.7647	4.4115
	45	1.5600	1.7722	1.9784	2.2476	2.4513			13	1.9778	2.4123	2.8821	3.5710	4.1528
	50	1.5432	1.7475	1.9451	2.2016	2.3947			14	1.9326	2.3407	2.7777	3.4116	3.9417
	60	1.5180	1.7108	1.8956	2.1336	2.3114			15	1.8939	2.2797	2.6894	3.2782	3.7662
	70	1.5000	1.6846	1.8606	2.0858	2.2530			16	1.8603	2.2272	2.6138	3.1650	3.6182
	80	1.4866	1.6651	1.8346	2.0504	2.2098			17	1.8309	2.1815	2.5484	3.0676	3.4916
	100	1.4677	1.6378	1.7983	2.0012	2.1502			18	1.8049	2.1413	2.4912	2.9831	3.3822
	120	1.4550	1.6197	1.7743	1.9688	2.1110			19	1.7818	2.1057	2.4408	2.9089	3.2867
	150	1.4424	1.6015	1.7503	1.9367	2.0723			20	1.7611	2.0739	2.3959	2.8434	3.2025
	200	1.4297	1.5834	1.7265	1.9047	2.0339			21	1.7424	2.0454	2.3558	2.7850	3.1279
	500	1.4069	1.5509	1.6838	1.8479	1.9657			22	1.7255	2.0196	2.3198	2.7328	3.0613
	$+\infty$	1.3916	1.5292	1.6555	1.8104	1.9209			23	1.7101	1.9963	2.2871	2.6856	3.0014
24	1	62.002	249.05	997.25	6234.6	24940			24	1.6960	1.9750	2.2574	2.6430	2.9472

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$\nu_1$	$\nu_2$	0.9	0.95	0.975	0.99	0.995	$\nu_1$	$\nu_2$	0.9	0.95	0.975	0.99	0.995
25	25	1.6831	1.9554	2.2303	2.6041	2.8981	35	9	2.2418	2.8422	3.5292	4.6020	5.5643
	30	1.6316	1.8782	2.1237	2.4526	2.7076		10	2.1420	2.6776	3.2794	4.2005	5.0110
	35	1.5950	1.8239	2.0493	2.3480	2.5772		11	2.0623	2.5480	3.0856	3.8948	4.5955
	40	1.5677	1.7835	1.9943	2.2714	2.4823		12	1.9971	2.4433	2.9309	3.6544	4.2725
	45	1.5464	1.7522	1.9521	2.2129	2.4101		13	1.9428	2.3570	2.8046	3.4606	4.0146
	50	1.5294	1.7273	1.9186	2.1667	2.3533		14	1.8968	2.2845	2.6994	3.3010	3.8040
	60	1.5039	1.6902	1.8687	2.0984	2.2697		15	1.8573	2.2227	2.6104	3.1674	3.6289
	70	1.4857	1.6638	1.8334	2.0503	2.2112		16	1.8230	2.1694	2.5342	3.0539	3.4811
	80	1.4720	1.6440	1.8071	2.0146	2.1678		17	1.7929	2.1229	2.4681	2.9563	3.3547
	100	1.4528	1.6163	1.7705	1.9652	2.1080		18	1.7663	2.0821	2.4103	2.8714	3.2453
	120	1.4399	1.5980	1.7462	1.9325	2.0686		19	1.7426	2.0458	2.3593	2.7969	3.1498
	150	1.4271	1.5796	1.7220	1.9001	2.0295		20	1.7213	2.0135	2.3139	2.7310	3.0656
	200	1.4142	1.5612	1.6978	1.8679	1.9909		21	1.7021	1.9844	2.2733	2.6723	2.9909
	500	1.3909	1.5282	1.6546	1.8105	1.9223		22	1.6847	1.9581	2.2366	2.6197	2.9241
	$+\infty$	1.3753	1.5061	1.6259	1.7726	1.8771		23	1.6689	1.9342	2.2035	2.5722	2.8641
30	1	62.265	250.10	1001.4	6260.6	25044		24	1.6544	1.9124	2.1733	2.5292	2.8098
	2	9.4579	19.462	39.465	99.466	199.47		25	1.6410	1.8924	2.1458	2.4900	2.7605
	3	5.1681	8.6166	14.081	26.505	42.466		30	1.5877	1.8132	2.0372	2.3369	2.5691
	4	3.8174	5.7459	8.4613	13.838	19.892		35	1.5497	1.7571	1.9611	2.2309	2.4377
	5	3.1741	4.4957	6.2269	9.3793	12.656		40	1.5211	1.7154	1.9047	2.1531	2.3418
	6	2.8000	3.8082	5.0652	7.2285	9.3582		45	1.4989	1.6830	1.8613	2.0934	2.2687
	7	2.5555	3.3758	4.3624	5.9920	7.5345		50	1.4810	1.6571	1.8267	2.0463	2.2112
	8	2.3830	3.0794	3.8940	5.1981	6.3961		60	1.4541	1.6183	1.7752	1.9764	2.1263
	9	2.2547	2.8637	3.5604	4.6486	5.6248		70	1.4348	1.5906	1.7386	1.9271	2.0666
	10	2.1554	2.6996	3.3110	4.2469	5.0706		80	1.4203	1.5699	1.7112	1.8904	2.0223
	11	2.0762	2.5705	3.1176	3.9411	4.6543		100	1.3998	1.5407	1.6729	1.8393	1.9610
	12	2.0115	2.4663	2.9633	3.7008	4.3309		120	1.3861	1.5213	1.6475	1.8055	1.9205
	13	1.9576	2.3803	2.8372	3.5070	4.0727		150	1.3723	1.5018	1.6220	1.7719	1.8803
	14	1.9119	2.3082	2.7324	3.3476	3.8619		200	1.3583	1.4822	1.5966	1.7383	1.8404
	15	1.8728	2.2468	2.6437	3.2141	3.6867		500	1.3331	1.4467	1.5508	1.6783	1.7692
	16	1.8388	2.1938	2.5678	3.1007	3.5389		$+\infty$	1.3160	1.4229	1.5201	1.6383	1.7221
	17	1.8090	2.1477	2.5020	3.0032	3.4124	40	1	62.529	251.14	1005.6	6286.8	25148
	18	1.7827	2.1071	2.4445	2.9185	3.3030		2	9.4662	19.471	39.473	99.474	199.47
	19	1.7592	2.0712	2.3937	2.8442	3.2075		3	5.1597	8.5944	14.037	26.411	42.308
	20	1.7382	2.0391	2.3486	2.7785	3.1234		4	3.8036	5.7170	8.4111	13.745	19.752
	21	1.7193	2.0102	2.3082	2.7200	3.0488		5	3.1573	4.4638	6.1750	9.2912	12.530
	22	1.7021	1.9842	2.2718	2.6675	2.9821		6	2.7812	3.7743	5.0125	7.1432	9.2408
	23	1.6864	1.9605	2.2389	2.6202	2.9221		7	2.5351	3.3404	4.3089	5.9084	7.4224
	24	1.6721	1.9390	2.2090	2.5773	2.8679		8	2.3614	3.0428	3.8398	5.1156	6.2875
	25	1.6589	1.9192	2.1816	2.5383	2.8187		9	2.2320	2.8259	3.5055	4.5666	5.5186
	30	1.6065	1.8409	2.0739	2.3860	2.6278		10	2.1317	2.6609	3.2554	4.1653	4.9659
	35	1.5691	1.7856	1.9986	2.2806	2.4969		11	2.0516	2.5309	3.0613	3.8596	4.5508
	40	1.5411	1.7444	1.9429	2.2034	2.4015		12	1.9861	2.4259	2.9063	3.6192	4.2282
	45	1.5193	1.7126	1.9000	2.1443	2.3288		13	1.9315	2.3392	2.7797	3.4253	3.9704
	50	1.5018	1.6872	1.8659	2.0976	2.2717		14	1.8852	2.2664	2.6742	3.2656	3.7600
	60	1.4755	1.6491	1.8152	2.0285	2.1874		15	1.8454	2.2043	2.5850	3.1319	3.5850
	70	1.4567	1.6220	1.7792	1.9797	2.1283		16	1.8108	2.1507	2.5085	3.0182	3.4372
	80	1.4426	1.6017	1.7523	1.9435	2.0845		17	1.7805	2.1040	2.4422	2.9205	3.3108
	100	1.4227	1.5733	1.7148	1.8933	2.0239		18	1.7537	2.0629	2.3842	2.8354	3.2014
	120	1.4094	1.5543	1.6899	1.8600	1.9840		19	1.7298	2.0264	2.3329	2.7608	3.1058
	150	1.3960	1.5354	1.6651	1.8270	1.9444		20	1.7083	1.9938	2.2873	2.6947	3.0215
	200	1.3826	1.5164	1.6403	1.7941	1.9051		21	1.6890	1.9645	2.2465	2.6359	2.9467
	500	1.3582	1.4821	1.5957	1.7353	1.8352		22	1.6714	1.9380	2.2097	2.5831	2.8799
	$+\infty$	1.3419	1.4591	1.5660	1.6964	1.7891		23	1.6554	1.9139	2.1763	2.5355	2.8197
35	1	62.416	250.69	1003.8	6275.6	25103		24	1.6407	1.8920	2.1460	2.4923	2.7654
	2	9.4627	19.467	39.469	99.471	199.47		25	1.6272	1.8718	2.1183	2.4530	2.7160
	3	5.1633	8.6039	14.055	26.451	42.376		30	1.5732	1.7918	2.0089	2.2992	2.5241
	4	3.8096	5.7294	8.4327	13.785	19.812		35	1.5346	1.7351	1.9321	2.1926	2.3922
	5	3.1645	4.4775	6.1973	9.3291	12.584		40	1.5056	1.6928	1.8752	2.1142	2.2958
	6	2.7893	3.7889	5.0352	7.1799	9.2913		45	1.4830	1.6599	1.8313	2.0542	2.2224
	7	2.5439	3.3557	4.3319	5.9444	7.4707		50	1.4648	1.6337	1.7963	2.0066	2.1644

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$\nu_1$	$\nu_2$	0.9	0.95	0.975	0.99	0.995	$\nu_1$	$\nu_2$	0.9	0.95	0.975	0.99	0.995
40	60	1.4373	1.5943	1.7440	1.9360	2.0789	50	15	1.8284	2.1780	2.5488	3.0814	3.5225
	70	1.4176	1.5661	1.7069	1.8861	2.0186		16	1.7934	2.1240	2.4719	2.9675	3.3747
	80	1.4027	1.5449	1.6790	1.8489	1.9739		17	1.7628	2.0769	2.4053	2.8694	3.2482
	100	1.3817	1.5151	1.6401	1.7972	1.9119		18	1.7356	2.0354	2.3468	2.7841	3.1387
	120	1.3676	1.4952	1.6141	1.7628	1.8709		19	1.7114	1.9986	2.2952	2.7093	3.0430
	150	1.3534	1.4752	1.5882	1.7286	1.8302		20	1.6896	1.9656	2.2493	2.6430	2.9586
	200	1.3390	1.4551	1.5621	1.6945	1.7897		21	1.6700	1.9360	2.2081	2.5838	2.8837
	500	1.3129	1.4186	1.5151	1.6332	1.7172		22	1.6521	1.9092	2.1710	2.5308	2.8167
	$+\infty$	1.2951	1.3940	1.4835	1.5923	1.6691		23	1.6358	1.8848	2.1374	2.4829	2.7564
	45	1	62.617	251.49	1007.0	6295.5	25183	24	1.6209	1.8625	2.1067	2.4395	2.7018
45	2	9.4690	19.474	39.476	99.477	199.48	25	1.6072	1.8421	2.0787	2.3999	2.6522	
	3	5.1569	8.5870	14.022	26.379	42.255	30	1.5522	1.7609	1.9681	2.2450	2.4594	
	4	3.7990	5.7073	8.3943	13.714	19.705	35	1.5127	1.7032	1.8902	2.1374	2.3266	
	5	3.1517	4.4530	6.1576	9.2616	12.487	40	1.4830	1.6600	1.8324	2.0581	2.2295	
	6	2.7748	3.7629	4.9947	7.1145	9.2014	45	1.4597	1.6264	1.7876	1.9972	2.1553	
	7	2.5282	3.3285	4.2908	5.8803	7.3847	50	1.4409	1.5995	1.7520	1.9490	2.0967	
	8	2.3540	3.0304	3.8215	5.0878	6.2510	60	1.4126	1.5590	1.6985	1.8772	2.0100	
	9	2.2242	2.8131	3.4869	4.5390	5.4827	70	1.3922	1.5300	1.6604	1.8263	1.9488	
	10	2.1236	2.6477	3.2366	4.1377	4.9306	80	1.3767	1.5081	1.6318	1.7883	1.9033	
	11	2.0432	2.5174	3.0422	3.8320	4.5158	100	1.3548	1.4772	1.5917	1.7353	1.8400	
	12	1.9774	2.4121	2.8870	3.5915	4.1934	120	1.3400	1.4565	1.5649	1.7000	1.7981	
	13	1.9225	2.3252	2.7601	3.3976	3.9358	150	1.3251	1.4357	1.5379	1.6648	1.7563	
	14	1.8760	2.2521	2.6544	3.2378	3.7254	200	1.3100	1.4146	1.5108	1.6295	1.7147	
	15	1.8360	2.1897	2.5650	3.1039	3.5504	500	1.2823	1.3762	1.4616	1.5658	1.6398	
	16	1.8012	2.1360	2.4883	2.9902	3.4026	$+\infty$	1.2633	1.3501	1.4284	1.5231	1.5898	
50	17	1.7707	2.0890	2.4218	2.8922	3.2762	60	1	62.794	252.20	1009.8	6313.0	25253
	18	1.7437	2.0477	2.3635	2.8071	3.1667	2	9.4746	19.479	39.481	99.482	199.48	
	19	1.7196	2.0110	2.3121	2.7323	3.0711	3	5.1512	8.5720	13.992	26.316	42.149	
	20	1.6980	1.9783	2.2663	2.6661	2.9868	4	3.7896	5.6877	8.3604	13.652	19.611	
	21	1.6785	1.9488	2.2253	2.6071	2.9119	5	3.1402	4.4314	6.1225	9.2020	12.402	
	22	1.6608	1.9221	2.1883	2.5542	2.8449	6	2.7620	3.7398	4.9589	7.0567	9.1219	
	23	1.6446	1.8979	2.1548	2.5065	2.7847	7	2.5142	3.3043	4.2544	5.8236	7.3088	
	24	1.6298	1.8757	2.1243	2.4632	2.7303	8	2.3391	3.0053	3.7844	5.0316	6.1772	
	25	1.6161	1.8554	2.0964	2.4237	2.6808	9	2.2085	2.7872	3.4493	4.4831	5.4104	
	30	1.5616	1.7748	1.9864	2.2693	2.4884	10	2.1072	2.6211	3.1984	4.0819	4.8592	
	35	1.5226	1.7175	1.9090	2.1622	2.3560	11	2.0261	2.4901	3.0035	3.7761	4.4450	
	40	1.4932	1.6748	1.8516	2.0833	2.2593	12	1.9597	2.3842	2.8478	3.5355	4.1229	
	45	1.4702	1.6415	1.8073	2.0228	2.1854	13	1.9043	2.2966	2.7204	3.3413	3.8655	
	50	1.4517	1.6149	1.7719	1.9749	2.1272	14	1.8572	2.2229	2.6142	3.1813	3.6552	
	60	1.4238	1.5749	1.7191	1.9037	2.0410	15	1.8168	2.1601	2.5242	3.0471	3.4803	
	70	1.4037	1.5463	1.6814	1.8533	1.9803	16	1.7816	2.1058	2.4471	2.9330	3.3324	
	80	1.3885	1.5247	1.6532	1.8157	1.9352	17	1.7506	2.0584	2.3801	2.8348	3.2058	
	100	1.3670	1.4944	1.6136	1.7633	1.8725	18	1.7232	2.0166	2.3214	2.7493	3.0962	
	120	1.3526	1.4741	1.5872	1.7284	1.8310	19	1.6988	1.9795	2.2696	2.6742	3.0004	
	150	1.3380	1.4536	1.5607	1.6937	1.7898	20	1.6768	1.9464	2.2234	2.6077	2.9159	
	200	1.3232	1.4330	1.5341	1.6590	1.7487	21	1.6569	1.9165	2.1819	2.5484	2.8408	
	500	1.2963	1.3955	1.4860	1.5964	1.6750	22	1.6389	1.8894	2.1446	2.4951	2.7736	
	$+\infty$	1.2779	1.3701	1.4536	1.5546	1.6259	23	1.6224	1.8648	2.1107	2.4471	2.7132	
50	1	62.688	251.77	1008.1	6302.5	25211	24	1.6073	1.8424	2.0799	2.4035	2.6585	
	2	9.4712	19.476	39.478	99.479	199.48	25	1.5934	1.8217	2.0516	2.3637	2.6088	
	3	5.1546	8.5810	14.010	26.354	42.213	30	1.5376	1.7396	1.9400	2.2079	2.4151	
	4	3.7952	5.6995	8.3808	13.690	19.667	35	1.4975	1.6811	1.8613	2.0994	2.2816	
	5	3.1471	4.4444	6.1436	9.2378	12.454	40	1.4672	1.6373	1.8028	2.0194	2.1838	
	6	2.7697	3.7537	4.9804	7.0915	9.1697	45	1.4434	1.6031	1.7574	1.9579	2.1090	
	7	2.5226	3.3189	4.2763	5.8577	7.3544	50	1.4242	1.5757	1.7211	1.9090	2.0499	
	8	2.3481	3.0204	3.8067	5.0654	6.2215	60	1.3952	1.5343	1.6668	1.8363	1.9622	
	9	2.2180	2.8028	3.4719	4.5167	5.4539	70	1.3742	1.5046	1.6279	1.7846	1.9002	
	10	2.1171	2.6371	3.2214	4.1155	4.9022	80	1.3583	1.4821	1.5987	1.7459	1.8540	
	11	2.0364	2.5066	3.0268	3.8097	4.4876	100	1.3356	1.4504	1.5575	1.6918	1.7896	
	12	1.9704	2.4010	2.8714	3.5692	4.1653	120	1.3203	1.4290	1.5299	1.6557	1.7469	
	13	1.9153	2.3138	2.7443	3.3752	3.9078	150	1.3048	1.4074	1.5022	1.6195	1.7041	
	14	1.8686	2.2405	2.6384	3.2153	3.6975	200	1.2891	1.3856	1.4742	1.5833	1.6614	

$\nu_1$	$\nu_2$	0.9	0.95	0.975	0.99	0.995	$\nu_1$	$\nu_2$	0.9	0.95	0.975	0.99	0.995		
60	500	1.2600	1.3455	1.4231	1.5174	1.5843	80	22	1.6218	1.8641	2.1108	2.4496	2.7187		
	$+\infty$	1.2400	1.3180	1.3883	1.4730	1.5325		23	1.6051	1.8392	2.0766	2.4013	2.6581		
70	1	62.870	252.50	1011.0	6320.6	25283		24	1.5897	1.8164	2.0454	2.3573	2.6031		
	2	9.4769	19.481	39.484	99.485	199.49		25	1.5755	1.7955	2.0169	2.3173	2.5532		
	3	5.1487	8.5656	13.979	26.289	42.104		30	1.5187	1.7121	1.9039	2.1601	2.3584		
	4	3.7855	5.6793	8.3458	13.625	19.570		35	1.4776	1.6525	1.8240	2.0505	2.2237		
	5	3.1353	4.4220	6.1074	9.1763	12.366		40	1.4465	1.6077	1.7644	1.9694	2.1249		
	6	2.7564	3.7298	4.9434	7.0318	9.0877		45	1.4221	1.5726	1.7181	1.9069	2.0491		
	7	2.5082	3.2939	4.2386	5.7991	7.2760		50	1.4023	1.5445	1.6810	1.8571	1.9891		
	8	2.3326	2.9944	3.7684	5.0073	6.1453		60	1.3722	1.5019	1.6252	1.7828	1.8998		
	9	2.2017	2.7760	3.4330	4.4589	5.3791		70	1.3503	1.4711	1.5851	1.7298	1.8365		
	10	2.1000	2.6095	3.1818	4.0577	4.8283		80	1.3337	1.4477	1.5549	1.6901	1.7892		
	11	2.0187	2.4782	2.9867	3.7518	4.4143		100	1.3100	1.4146	1.5122	1.6342	1.7231		
	12	1.9520	2.3720	2.8307	3.5111	4.0924		120	1.2938	1.3922	1.4834	1.5968	1.6789		
	13	1.8963	2.2841	2.7030	3.3168	3.8350		150	1.2774	1.3694	1.4543	1.5592	1.6347		
	14	1.8490	2.2102	2.5966	3.1567	3.6248		200	1.2605	1.3463	1.4248	1.5212	1.5902		
	15	1.8083	2.1472	2.5064	3.0224	3.4498		500	1.2292	1.3033	1.3704	1.4517	1.5091		
	16	1.7729	2.0926	2.4291	2.9082	3.3018		$+\infty$	1.2072	1.2735	1.3329	1.4041	1.4540		
	17	1.7418	2.0450	2.3619	2.8097	3.1752		100	1	63.007	253.04	1013.2	6334.1	25337	
	18	1.7142	2.0030	2.3030	2.7241	3.0655			2	9.4812	19.486	39.488	99.489	199.49	
	19	1.6896	1.9657	2.2509	2.6488	2.9695			3	5.1443	8.5539	13.956	26.240	42.022	
	20	1.6674	1.9323	2.2045	2.5822	2.8849			4	3.7782	5.6641	8.3195	13.577	19.497	
	21	1.6474	1.9023	2.1629	2.5227	2.8097			5	3.1263	4.4051	6.0800	9.1299	12.300	
	22	1.6292	1.8751	2.1254	2.4693	2.7424			6	2.7463	3.7117	4.9154	6.9867	9.0257	
	23	1.6125	1.8503	2.0913	2.4210	2.6818			7	2.4971	3.2749	4.2101	5.7547	7.2165	
	24	1.5973	1.8276	2.0603	2.3773	2.6270			8	2.3208	2.9747	3.7393	4.9633	6.0875	
	25	1.5833	1.8069	2.0319	2.3373	2.5772			9	2.1892	2.7556	3.4034	4.4150	5.3223	
	30	1.5269	1.7240	1.9195	2.1808	2.3829			10	2.0869	2.5884	3.1517	4.0137	4.7721	
	35	1.4862	1.6649	1.8402	2.0716	2.2488			11	2.0050	2.4566	2.9561	3.7077	4.3585	
	40	1.4555	1.6205	1.7810	1.9911	2.1504			12	1.9379	2.3498	2.7996	3.4668	4.0368	
	45	1.4313	1.5859	1.7351	1.9290	2.0751			13	1.8817	2.2614	2.6715	3.2723	3.7795	
	50	1.4119	1.5580	1.6984	1.8797	2.0155			14	1.8340	2.1870	2.5646	3.1118	3.5692	
	60	1.3822	1.5160	1.6433	1.8061	1.9269			15	1.7929	2.1234	2.4739	2.9772	3.3941	
	70	1.3608	1.4857	1.6038	1.7537	1.8642			16	1.7570	2.0685	2.3961	2.8627	3.2460	
	80	1.3444	1.4628	1.5740	1.7144	1.8174			17	1.7255	2.0204	2.3285	2.7639	3.1192	
	100	1.3212	1.4303	1.5320	1.6594	1.7521			18	1.6976	1.9780	2.2692	2.6779	3.0093	
	120	1.3055	1.4083	1.5038	1.6226	1.7086			19	1.6726	1.9403	2.2167	2.6023	2.9131	
	150	1.2895	1.3861	1.4753	1.5856	1.6651			20	1.6501	1.9066	2.1699	2.5353	2.8282	
	200	1.2731	1.3636	1.4465	1.5485	1.6215			21	1.6298	1.8761	2.1280	2.4755	2.7527	
	500	1.2428	1.3220	1.3937	1.4807	1.5423			22	1.6113	1.8486	2.0901	2.4217	2.6852	
	$+\infty$	1.2218	1.2933	1.3575	1.4346	1.4888			23	1.5944	1.8234	2.0557	2.3732	2.6243	
80	1	62.927	252.72	1011.9	6326.2	25306			24	1.5788	1.8005	2.0243	2.3291	2.5692	
	2	9.4787	19.483	39.485	99.487	199.49			25	1.5645	1.7794	1.9955	2.2888	2.5191	
	3	5.1469	8.5607	13.970	26.269	42.070			30	1.5069	1.6950	1.8816	2.1307	2.3234	
	4	3.7825	5.6730	8.3349	13.605	19.540			35	1.4653	1.6347	1.8009	2.0202	2.1880	
	5	3.1316	4.4150	6.0960	9.1570	12.338			40	1.4336	1.5892	1.7405	1.9383	2.0884	
	6	2.7522	3.7223	4.9318	7.0130	9.0619			45	1.4087	1.5536	1.6935	1.8751	2.0119	
	7	2.5036	3.2860	4.2268	5.7806	7.2513			50	1.3885	1.5249	1.6558	1.8248	1.9512	
	8	2.3277	2.9862	3.7563	4.9890	6.1213			60	1.3576	1.4814	1.5990	1.7493	1.8609	
	9	2.1965	2.7675	3.4207	4.4407	5.3555			70	1.3352	1.4498	1.5581	1.6954	1.7966	
	10	2.0946	2.6008	3.1694	4.0394	4.8050			80	1.3180	1.4259	1.5271	1.6548	1.7484	
	11	2.0130	2.4692	2.9740	3.7335	4.3912			100	1.2934	1.3917	1.4833	1.5977	1.6809	
	12	1.9461	2.3628	2.8178	3.4928	4.0693			120	1.2767	1.3685	1.4536	1.5592	1.6357	
	13	1.8903	2.2747	2.6900	3.2984	3.8120			150	1.2595	1.3448	1.4234	1.5204	1.5901	
	14	1.8428	2.2006	2.5833	3.1381	3.6017			200	1.2418	1.3206	1.3927	1.4811	1.5442	
	15	1.8019	2.1373	2.4930	3.0037	3.4267			500	1.2086	1.2753	1.3356	1.4084	1.4598	
	16	1.7664	2.0826	2.4154	2.8893	3.2787			$+\infty$	1.1850	1.2434	1.2956	1.3581	1.4017	
	17	1.7351	2.0348	2.3481	2.7908	3.1520			120	1	63.061	253.25	1014.0	6339.4	25359
	18	1.7073	1.9927	2.2890	2.7050	3.0422				2	9.4829	19.487	39.490	99.491	199.49
	19	1.6826	1.9552	2.2368	2.6296	2.9462				3	5.1425	8.5494	13.947	26.221	41.989
	20	1.6603	1.9217	2.1902	2.5628	2.8614				4	3.7753	5.6581	8.3092	13.558	19.468
	21	1.6401	1.8915	2.1485	2.5032	2.7861				5	3.1228	4.3985	6.0693	9.1118	12.274

$\nu_1$	$\nu_2$	0.9	0.95	0.975	0.99	0.995	$\nu_1$	$\nu_2$	0.9	0.95	0.975	0.99	0.995
120	6	2.7423	3.7047	4.9044	6.9690	9.0015	150	45	1.3900	1.5272	1.6596	1.8313	1.9607
	7	2.4928	3.2674	4.1989	5.7373	7.1933		50	1.3691	1.4977	1.6210	1.7799	1.8989
	8	2.3162	2.9669	3.7279	4.9461	6.0649		60	1.3372	1.4527	1.5625	1.7027	1.8067
	9	2.1843	2.7475	3.3918	4.3978	5.3001		70	1.3137	1.4200	1.5202	1.6472	1.7408
	10	2.0818	2.5801	3.1399	3.9965	4.7501		80	1.2957	1.3949	1.4880	1.6053	1.6912
	11	1.9997	2.4480	2.9441	3.6904	4.3367		100	1.2698	1.3591	1.4422	1.5459	1.6213
	12	1.9323	2.3410	2.7874	3.4494	4.0149		120	1.2519	1.3345	1.4109	1.5057	1.5741
	13	1.8759	2.2524	2.6590	3.2548	3.7577		150	1.2335	1.3093	1.3789	1.4647	1.5264
	14	1.8280	2.1778	2.5519	3.0942	3.5473		200	1.2143	1.2832	1.3460	1.4229	1.4777
	15	1.7867	2.1141	2.4611	2.9595	3.3722		500	1.1775	1.2334	1.2836	1.3442	1.3868
	16	1.7507	2.0589	2.3831	2.8447	3.2240		$+\infty$	1.1505	1.1972	1.2387	1.2881	1.3224
	17	1.7191	2.0107	2.3153	2.7459	3.0971	200	1	63.167	253.68	1015.7	6350.0	25401
	18	1.6910	1.9681	2.2558	2.6597	2.9871		2	9.4862	19.491	39.493	99.494	199.49
	19	1.6659	1.9302	2.2032	2.5839	2.8908		3	5.1390	8.5402	13.929	26.183	41.925
	20	1.6433	1.8963	2.1562	2.5168	2.8058		4	3.7695	5.6461	8.2885	13.520	19.411
	21	1.6228	1.8657	2.1141	2.4568	2.7302		5	3.1157	4.3851	6.0478	9.0754	12.222
	22	1.6041	1.8380	2.0760	2.4029	2.6625		6	2.7343	3.6904	4.8824	6.9336	8.9528
	23	1.5871	1.8128	2.0415	2.3542	2.6015		7	2.4841	3.2525	4.1764	5.7024	7.1466
	24	1.5715	1.7896	2.0099	2.3100	2.5463		8	2.3068	2.9513	3.7050	4.9114	6.0194
	25	1.5570	1.7684	1.9811	2.2696	2.4961		9	2.1744	2.7313	3.3684	4.3631	5.2554
	30	1.4989	1.6835	1.8664	2.1108	2.2998		10	2.0713	2.5634	3.1161	3.9617	4.7058
	35	1.4568	1.6226	1.7851	1.9996	2.1637		11	1.9888	2.4308	2.9198	3.6555	4.2926
	40	1.4248	1.5766	1.7242	1.9172	2.0636		12	1.9210	2.3233	2.7626	3.4143	3.9709
	45	1.3995	1.5406	1.6767	1.8535	1.9865		13	1.8642	2.2343	2.6339	3.2194	3.7136
	50	1.3789	1.5115	1.6386	1.8026	1.9254		14	1.8159	2.1592	2.5264	3.0585	3.5032
	60	1.3476	1.4673	1.5810	1.7263	1.8341		15	1.7743	2.0950	2.4352	2.9235	3.3279
	70	1.3246	1.4351	1.5394	1.6717	1.7691		16	1.7379	2.0395	2.3567	2.8084	3.1796
	80	1.3071	1.4107	1.5079	1.6305	1.7203		17	1.7060	1.9909	2.2886	2.7092	3.0524
	100	1.2819	1.3757	1.4631	1.5723	1.6516		18	1.6775	1.9479	2.2287	2.6227	2.9421
	120	1.2646	1.3519	1.4327	1.5330	1.6055		19	1.6521	1.9097	2.1757	2.5467	2.8456
	150	1.2468	1.3275	1.4017	1.4932	1.5590		20	1.6292	1.8755	2.1284	2.4792	2.7603
	200	1.2285	1.3024	1.3700	1.4527	1.5118		21	1.6085	1.8446	2.0859	2.4189	2.6845
	500	1.1936	1.2551	1.3105	1.3774	1.4245		22	1.5896	1.8165	2.0475	2.3646	2.6165
	$+\infty$	1.1686	1.2214	1.2684	1.3246	1.3637		23	1.5723	1.7909	2.0126	2.3156	2.5552
150	1	63.114	253.46	1014.9	6344.7	25380		24	1.5563	1.7675	1.9807	2.2710	2.4997
	2	9.4846	19.489	39.491	99.492	199.49		25	1.5417	1.7460	1.9515	2.2303	2.4492
	3	5.1408	8.5448	13.938	26.202	41.957		30	1.4824	1.6597	1.8354	2.0700	2.2514
	4	3.7724	5.6521	8.2988	13.539	19.440		35	1.4393	1.5976	1.7527	1.9574	2.1140
	5	3.1193	4.3918	6.0586	9.0936	12.248		40	1.4064	1.5505	1.6906	1.8737	2.0125
	6	2.7383	3.6976	4.8934	6.9513	8.9772		45	1.3803	1.5135	1.6420	1.8087	1.9342
	7	2.4884	3.2600	4.1877	5.7199	7.1700		50	1.3590	1.4835	1.6029	1.7567	1.8719
	8	2.3115	2.9591	3.7165	4.9287	6.0422		60	1.3264	1.4377	1.5435	1.6784	1.7785
	9	2.1793	2.7394	3.3801	4.3805	5.2778		70	1.3024	1.4042	1.5003	1.6220	1.7116
	10	2.0766	2.5718	3.1280	3.9792	4.7280		80	1.2839	1.3786	1.4674	1.5792	1.6611
	11	1.9942	2.4394	2.9320	3.6730	4.3147		100	1.2571	1.3416	1.4203	1.5184	1.5897
	12	1.9266	2.3322	2.7750	3.4319	3.9930		120	1.2385	1.3162	1.3880	1.4770	1.5413
	13	1.8701	2.2434	2.6465	3.2371	3.7357		150	1.2193	1.2899	1.3548	1.4347	1.4921
	14	1.8220	2.1686	2.5392	3.0764	3.5254		200	1.1991	1.2626	1.3204	1.3912	1.4416
	15	1.7805	2.1046	2.4482	2.9415	3.3501		500	1.1598	1.2096	1.2543	1.3081	1.3459
	16	1.7444	2.0492	2.3700	2.8267	3.2019		$+\infty$	1.1301	1.1700	1.2053	1.2472	1.2763
	17	1.7126	2.0008	2.3020	2.7276	3.0748	500	1	63.264	254.06	1017.2	6359.5	25439
	18	1.6843	1.9581	2.2423	2.6413	2.9647		2	9.4892	19.494	39.496	99.497	199.50
	19	1.6590	1.9200	2.1895	2.5654	2.8683		3	5.1358	8.5320	13.913	26.148	41.867
	20	1.6363	1.8860	2.1424	2.4981	2.7832		4	3.7642	5.6353	8.2698	13.486	19.359
	21	1.6157	1.8552	2.1001	2.4379	2.7075		5	3.1093	4.3731	6.0283	9.0424	12.175
	22	1.5969	1.8273	2.0618	2.3839	2.6396		6	2.7270	3.6775	4.8625	6.9015	8.9088
	23	1.5797	1.8019	2.0271	2.3350	2.5785		7	2.4761	3.2389	4.1560	5.6707	7.1044
	24	1.5640	1.7787	1.9954	2.2906	2.5232		8	2.2983	2.9371	3.6842	4.8799	5.9782
	25	1.5494	1.7573	1.9664	2.2501	2.4727		9	2.1653	2.7166	3.3471	4.3317	5.2148
	30	1.4907	1.6717	1.8510	2.0905	2.2758		10	2.0618	2.5481	3.0944	3.9302	4.6656
	35	1.4482	1.6102	1.7691	1.9787	2.1391		11	1.9788	2.4151	2.8977	3.6238	4.2525
	40	1.4157	1.5637	1.7076	1.8956	2.0383		12	1.9106	2.3071	2.7401	3.3823	3.9309

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$\nu_1$	$\nu_2$	0.9	0.95	0.975	0.99	0.995	$\nu_1$	$\nu_2$	0.9	0.95	0.975	0.99	0.995
500	13	1.8535	2.2176	2.6109	3.1871	3.6735	$+\infty$	150	1.1694	1.2226	1.2714	1.3314	1.3744
	14	1.8048	2.1422	2.5030	3.0260	3.4630		200	1.1439	1.1885	1.2290	1.2785	1.3137
	15	1.7628	2.0776	2.4114	2.8906	3.2875		500	1.0871	1.1132	1.1365	1.1644	1.1840
	16	1.7262	2.0217	2.3326	2.7752	3.1389		$+\infty$	1.0000	1.0000	1.0000	1.0000	1.0000
	17	1.6939	1.9727	2.2640	2.6757	3.0115							
	18	1.6651	1.9294	2.2038	2.5889	2.9010							
	19	1.6394	1.8909	2.1504	2.5124	2.8042							
	20	1.6162	1.8562	2.1027	2.4446	2.7186							
	21	1.5952	1.8250	2.0599	2.3840	2.6425							
	22	1.5760	1.7966	2.0211	2.3294	2.5742							
	23	1.5585	1.7708	1.9859	2.2800	2.5126							
	24	1.5423	1.7470	1.9537	2.2351	2.4568							
	25	1.5274	1.7252	1.9242	2.1941	2.4059							
	30	1.4670	1.6375	1.8065	2.0321	2.2066							
	35	1.4229	1.5742	1.7224	1.9180	2.0676							
	40	1.3890	1.5260	1.6590	1.8329	1.9647							
	45	1.3621	1.4879	1.6092	1.7666	1.8850							
	50	1.3400	1.4569	1.5689	1.7133	1.8214							
	60	1.3060	1.4093	1.5075	1.6327	1.7256							
	70	1.2807	1.3743	1.4625	1.5743	1.6565							
	80	1.2611	1.3472	1.4280	1.5296	1.6041							
	100	1.2324	1.3079	1.3781	1.4656	1.5291							
	120	1.2122	1.2804	1.3434	1.4215	1.4778							
	150	1.1910	1.2516	1.3073	1.3757	1.4248							
	200	1.1683	1.2211	1.2691	1.3277	1.3694							
	500	1.1216	1.1587	1.1918	1.2317	1.2596							
	$+\infty$	1.0819	1.1063	1.1277	1.1530	1.1704							
$+\infty$	1	63.328	254.31	1018.3	6365.9	25464							
	2	9.4912	19.496	39.498	99.499	199.50							
	3	5.1337	8.5264	13.902	26.125	41.828							
	4	3.7607	5.6281	8.2573	13.463	19.325							
	5	3.1050	4.3650	6.0153	9.0204	12.144							
	6	2.7222	3.6689	4.8491	6.8800	8.8793							
	7	2.4708	3.2298	4.1423	5.6495	7.0760							
	8	2.2926	2.9276	3.6702	4.8588	5.9506							
	9	2.1592	2.7067	3.3329	4.3105	5.1875							
	10	2.0554	2.5379	3.0798	3.9090	4.6385							
	11	1.9721	2.4045	2.8828	3.6024	4.2255							
	12	1.9036	2.2962	2.7249	3.3608	3.9039							
	13	1.8462	2.2064	2.5955	3.1654	3.6465							
	14	1.7973	2.1307	2.4872	3.0040	3.4359							
	15	1.7551	2.0658	2.3953	2.8684	3.2602							
	16	1.7182	2.0096	2.3163	2.7528	3.1115							
	17	1.6856	1.9604	2.2474	2.6530	2.9839							
	18	1.6567	1.9168	2.1869	2.5660	2.8732							
	19	1.6308	1.8780	2.1333	2.4893	2.7762							
	20	1.6074	1.8432	2.0853	2.4212	2.6904							
	21	1.5862	1.8117	2.0422	2.3603	2.6140							
	22	1.5668	1.7831	2.0032	2.3055	2.5455							
	23	1.5490	1.7570	1.9677	2.2558	2.4837							
	24	1.5327	1.7330	1.9353	2.2107	2.4276							
	25	1.5176	1.7110	1.9055	2.1694	2.3765							
	30	1.4564	1.6223	1.7867	2.0062	2.1760							
	35	1.4115	1.5580	1.7016	1.8910	2.0359							
	40	1.3769	1.5089	1.6371	1.8047	1.9318							
	45	1.3493	1.4700	1.5864	1.7374	1.8510							
	50	1.3267	1.4383	1.5452	1.6831	1.7863							
	60	1.2915	1.3893	1.4821	1.6006	1.6885							
	70	1.2652	1.3529	1.4357	1.5404	1.6176							
	80	1.2446	1.3247	1.3997	1.4942	1.5634							
	100	1.2142	1.2832	1.3473	1.4272	1.4853							
	120	1.1926	1.2539	1.3104	1.3805	1.4311							

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