

Tabellen zur Ermittlung varianzminimaler unverzerrter Schätzwerte
für Mittelwert und Varianz der Lognormal-Verteilung

Peter Naeve

Eine positive Zufallsvariable ξ heißt lognormal verteilt, wenn die Zufallsvariable $\eta = \log \xi$ normalverteilt ist mit den Parametern μ und σ^2 . Schreibt man für die Verteilungen

$$(1) \quad \begin{aligned} P(\eta \leq y) &= N(y|\mu, \sigma^2) = N(\mu, \sigma^2) \\ P(\xi \leq x) &= \Lambda(x|\mu, \sigma^2) = \Lambda(\mu, \sigma^2), \end{aligned}$$

dann folgt aus $\eta = \log \xi$

$$(2) \quad \Lambda(x|\mu, \sigma^2) = \begin{cases} N(\log x | \mu, \sigma^2) & x > 0; \\ 0 & x \leq 0. \end{cases}$$

Da $dy = x^{-1} dx$ ist, ergibt sich

$$(3) \quad d\Lambda(x|\mu, \sigma^2) = (x^2 \sigma^2 2\pi)^{-\frac{1}{2}} \exp\{-(2 \sigma^2)^{-1}(\log x - \mu)^2\} dx \quad x > 0.$$

Die Lognormal-Verteilung ist durch die Parameter μ und σ^2 der zugehörigen Normalverteilung völlig bestimmt.

Für die Momente um Null der Lognormal-Verteilung

$$(4) \quad \lambda_j^! = \int_0^{\infty} x^j d\Lambda(x|\mu, \sigma^2)$$

kann man wegen $x = e^y$ und $d\Lambda(x|\mu, \sigma^2) = dN(y|\mu, \sigma^2)$ schreiben:

$$(4') \quad \lambda_j^! = \int_{-\infty}^{+\infty} e^{jy} dN(y|\mu, \sigma^2) = e^{j\mu + (j \sigma)^2/2}.$$

Für den Mittelwert α und für die Varianz β^2 der Lognormalverteilung, erhält man

$$\begin{aligned}
 \alpha &= \exp\{\mu + 1/2 \sigma^2\} \\
 \beta^2 &= \exp\{2\mu + 2\sigma^2\} - \exp\{2\mu + \sigma^2\} \\
 (5) \quad &= \exp\{2\mu + \sigma^2\}(\exp\{\sigma^2\} - 1) \\
 &= \alpha^2 K^2.
 \end{aligned}$$

Worin K für den Variationskoeffizienten β/α steht.

Es gilt aus einer Stichprobe X_1, X_2, \dots, X_n Schätzwerte für den Mittelwert α und die Varianz β^2 zu ermitteln. Stellt man die Likelihood-Funktion auf,

$$(6) \quad L(x_1, \dots, x_n) = \left(\prod_{i=1}^n x_i \right)^{-1} (\sigma^2 2\pi)^{-n/2} \exp\{-(2\sigma^2)^{-1} \sum_{i=1}^n (\log x_i - \mu)^2\}$$

so erkennt man, daß sich aus (6) mit (5) nicht manipulierbare Gleichungen ergeben.

Die Methode des Maximum-Likelihood liefert als Schätzwerte für die Parameter μ und σ^2 der Normalverteilung $N(\mu, \sigma^2)$.

$$\begin{aligned}
 (7) \quad m_1 &= \frac{1}{n} \sum_{i=1}^n \log x_i = \bar{y} \\
 m_2 &= \frac{1}{n} \sum_{i=1}^n (\log x_i - m_1)^2 = \frac{n-1}{n} v_y^2
 \end{aligned}$$

wobei $v_y^2 = \frac{1}{n-1} \sum (\log x_i - \bar{y})^2$ ist.

Man hat unverzerrte Schätzwerte mit minimaler Varianz, wenn man m_1 und v_y^2 als Schätzwerte für μ und σ^2 nimmt, außerdem sind sie suffizient, denn ¹⁾

¹⁾ Siehe 4 S. 356.

$$\begin{aligned}
 L(x_1, \dots, x_n) &= \left(\prod_{i=1}^n x_i \right)^{-1} (\sigma^2 2\pi)^{-\frac{n}{2}} \exp\left\{ -(2\sigma^2)^{-1} \sum_{i=1}^n (\log x_i - \mu)^2 \right\} \\
 &= \left(\prod_{i=1}^n x_i \right)^{-1} (2\pi \sigma^2)^{-\frac{n}{2}} \exp\left\{ -(2\sigma^2)^{-1} \sum (\log x_i - m_1)^2 + n(m_1 - \mu)^2 \right\} \\
 (8) \quad &= \left(\prod_{i=1}^n x_i \right)^{-1} (2\pi \sigma^2)^{-\frac{n}{2}} \exp\left\{ -(n-1)(2\sigma^2)^{-1} (v_y^2 + \frac{n}{n-1} (m_1 - \mu)^2) \right\} \\
 &= k(x_1, \dots, x_n) k(m_1, v_y^2, \mu, \sigma^2).
 \end{aligned}$$

Weiterhin sind \bar{y} und v_y^2 stochastisch unabhängig. \bar{y} ist $N(\mu, \frac{\sigma^2}{n})$ und v_y^2 ist χ^2 -verteilt mit $n-1$ Freiheitsgraden. Wie aus (5) ersichtlich, sind α und β^2 Funktionen von μ und σ^2 . Wenn es gelingt, Funktionen von \bar{y} und v_y^2 zu finden, deren Erwartungswerte α bzw. β^2 sind, dann hat man varianzminimale unverzerrte Schätzwerte vorliegen. Nach einem Satz ¹⁾ über suffiziente Schätzwerte ist nämlich jede Funktion suffizienter Schätzwerte der varianzminimale, unverzerrte Schätzwert ihres Erwartungswertes.

Betrachtet man $g(\bar{y}) = e^{\bar{y}}$, dann ergibt sich

$$(9) \quad E \left[g(\bar{y}) \right] = \exp\left\{ \mu + \frac{\sigma^2}{2n} \right\}$$

und mit $\alpha = \exp\left\{ \mu + \frac{1}{2} \sigma^2 \right\}$

$$(10) \quad E \left[g(\bar{y}) \right] = \alpha \exp\left\{ -\frac{n-1}{2n} \sigma^2 \right\}.$$

Läßt sich eine Funktion $f(v_y^2)$ finden mit $E \left[f(v_y^2) \right] = \exp\left\{ \frac{n-1}{2n} \sigma^2 \right\}$, dann ist wegen der Unabhängigkeit der Verteilungen von \bar{y} und v_y^2

¹⁾ Siehe 3 S. 139 f

$g(\bar{y}) \cdot f(v_y^2)$ ein varianzminimaler unverzerrter Schätzwert von α .

Nun ist

$$\begin{aligned}
 (11) \quad E \left[(v_y^2)^p \right] &= \int_0^{\infty} v_y^{2p} dF(v_y^2) \\
 &= \frac{1}{\Gamma\left(\frac{n-1}{2}\right)} \left((n-1)/2 \sigma^2 \right)^{-\frac{n-1}{2}} \int_0^{\infty} (v_y^2)^{\frac{n-1}{2}} \exp\left\{-(n-1)v_y^2/2 \sigma^2\right\} d(v_y^2) \\
 &= \frac{\Gamma\left(\frac{n-1}{2} + p\right)}{\Gamma\left(\frac{n-1}{2}\right)} \left(\frac{2 \sigma^2}{n-1}\right)^p.
 \end{aligned}$$

Daraus ergibt sich für ganzzahlige p

$$(12) \quad E \left[v_y^{2p} \right] = \frac{(n+1)(n+3)\dots(n+2p-3)}{(n-1)^{p-1}} \sigma^{2p}.$$

Definiert man nun die Funktion

$$(13) \quad \psi_n(t) = 1 + \frac{n-1}{n} t + \frac{(n-1)^3}{n^2 2!} \frac{t^2}{n+1} + \frac{(n-1)}{n^3 3!} \frac{t^3}{(n+1)(n+3)} + \dots,$$

dann findet man aus (12) und (13)

$$\begin{aligned}
 (14) \quad E \left[\psi_n\left(\frac{1}{2} r^2 v_y^2\right) \right] &= 1 + \frac{n-1}{2n} \sigma^2 r^2 + \frac{(n-1)^2}{2^2 n^2} \frac{\sigma^4 r^4}{2 \cdot 1} + \\
 &+ \frac{(n-1)^3}{2^3 n^3} \frac{\sigma^6 r^6}{3 \cdot 1} + \dots = \exp\left\{\frac{n-1}{2n} r^2 \sigma^2\right\}
 \end{aligned}$$

Für $r^2 = 1$ erfüllt $\psi_n\left(\frac{1}{2} v_y^2\right)$ gerade die an $f(v_y^2)$ gestellten Forderungen. Als varianzminimalen unverzerrten Schätzwert für α erhält man

$$(15) \quad a = e^{\bar{y}} \psi_n\left(\frac{1}{2} v_y^2\right).$$

Setzt man $r^2 = 4$ bzw. $r^2 = 2 \frac{n-2}{n-1}$, so hat man

$$(16) \quad E \left[\psi_n\left(2 v_y^2\right) \right] = \exp\left\{2 \frac{n-1}{n} \sigma^2\right\}$$

bzw. $E \left[\psi_n\left(\frac{n-2}{n-1} v_y^2\right) \right] = \exp\left\{\frac{n-2}{n} \sigma^2\right\}.$

Da $E \left[e^{2\bar{y}} \right] = \exp\left\{2 \mu + \frac{2}{n} \sigma^2\right\} = \alpha^2 \exp\left\{-\frac{n-2}{n} \sigma^2\right\}$ ist, folgt mit (16), wie man nach Bildung des Erwartungswertes durch Einsetzen sieht, daß

$$(17) \quad b^2 = e^{2\bar{y}} \left(\psi_n\left(2 v_y^2\right) - \psi_n\left(\frac{n-2}{n-1} v_y^2\right) \right)$$

ein varianzminimaler unverzerrter Schätzwert für β^2 ist.

Führt man zur Abkürzung (18) $\chi_n(t) = \psi_n(2t) - \psi_n\left(\frac{n-2}{n-1} t\right)$ ein, dann ergibt sich

$$(17') \quad b^2 = e^{2\bar{y}} \chi_n(v_y^2).$$

Damit hat man varianzminimale unverzerrte Schätzwerte für den Mittelwert und die Varianz der Lognormalverteilung gefunden. Die Schätzwerte ergeben sich als Funktionen der Parameter μ, σ^2 der Lognormalverteilung. Diese Parameter lassen sich mit der Methode des Maximum-Likelihood varianzminimal und unverzerrt schätzen. Die Schätzfunktionen für α bzw. β^2 sind ein Produkt aus einer Exponentialfunktion und der Funktion $\psi_n(t)$ bzw. $\chi_n(t)$, wobei $t = c v_y^2$, $c > 0$ $c =$ konstant ist. Die Funktion $\psi_n(t)$ und die aus ihr zusammengesetzte Funktion $\chi_n(t)$ ist zur Vereinfachung der Rechnung tabelliert worden. Zur Berechnung der Tabellen wurden die Gleichungen (13) und (18) verwendet.

Der Gebrauch der Tabelle sei an dem folgenden Beispiel verdeutlicht. Eine Stichprobe vom Umfang $n = 200$ aus einer lognormal-verteilten Grundgesamtheit habe die Werte $\bar{y} = 3.10$ und $v_y^2 = 1.10$ ergeben. Die Formel für die Schätzwerte lautet dann

$$a = e^{3.10} \psi_{200}(0.55)$$

$$b^2 = e^{6.20} \chi_{200}^2(1.10).$$

Man geht also in die Tabelle für ψ_n mit $n = 200$ und $t = \frac{1}{2} v_y^2 = 0.55$ ein. In der Tabelle für χ_n^2 sucht man den Wert für $n = 200$, $t = 1.10$ auf.

Man findet $\psi_{200}(0.55) = 1.7259$ und $\chi_{200}^2(1.10) = 5.7677$, damit hat als Schätzwerte für a und b^2

$$a = 38.31$$

$$b^2 = 2842.03$$

Literatur

- (1) Aitchison, J.;
Brown, J.A.C.: Lognormal Distribution. The University Press,
Cambridge, 1957.
- (2) Finey, D.J.: On The Distribution Of A Variable, Whose Lo-
garithm Is Normally Distributed. J. R. Sta-
tist. Soc. Supplement 7, 1941.
- (3) Rao, C.: Advanced Statistical Methods In Biometric Re-
search. J. Wiley a. Sons, New York, 1952.
- (4) Wilks, S.: Mathematical Statistics. J. Wiley a. Sons,
New York, 1963.

Tabellenanhang

Tabelle I	Seite
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Werte von $\psi_n(t)$

$n = 2$ (1) 50 (5) 130 (10) 200 (100) 1000,
5000, 10000, ∞

$t = 0.05$ (0.05) 4.00

Tabelle II	Seite
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Werte von $\chi_n(t)$

$n = 2$ (1) 50 (5) 130 (10) 200, 250,
300 (100) 1000 (1000) 5000, 7500,
10000, ∞

$t = 0.05$ (0.05) 4.00

Tabelle I

t	n	2	3	4	5	6	7	8	9	10	11	12	13
0.05	1.0251	1.0336	1.0379	1.0403	1.0423	1.0436	1.0445	1.0452	1.0458	1.0463	1.0467	1.0471	1.0476
0.10	1.0504	1.0678	1.0767	1.0822	1.0859	1.0885	1.0905	1.0921	1.0934	1.0944	1.0953	1.0960	1.0966
0.15	1.0759	1.1029	1.1164	1.1249	1.1307	1.1349	1.1381	1.1407	1.1427	1.1444	1.1458	1.1470	1.1480
0.20	1.1017	1.1378	1.1569	1.1688	1.1769	1.1828	1.1874	1.1909	1.1938	1.1962	1.1982	1.1999	1.2015
0.25	1.1276	1.1737	1.1983	1.2138	1.2244	1.2323	1.2382	1.2430	1.2468	1.2500	1.2527	1.2550	1.2572
0.30	1.1538	1.2102	1.2407	1.2600	1.2734	1.2833	1.2908	1.2969	1.3018	1.3058	1.3092	1.3122	1.3150
0.35	1.1802	1.2473	1.2840	1.3074	1.3237	1.3359	1.3452	1.3526	1.3587	1.3637	1.3680	1.3716	1.3750
0.40	1.2068	1.2850	1.3282	1.3560	1.3756	1.3901	1.4013	1.4103	1.4177	1.4238	1.4290	1.4334	1.4373
0.45	1.2336	1.3233	1.3734	1.4059	1.4289	1.4460	1.4594	1.4700	1.4788	1.4861	1.4923	1.4977	1.5025
0.50	1.2606	1.3622	1.4193	1.4570	1.4837	1.5057	1.5193	1.5310	1.5421	1.5506	1.5579	1.5642	1.5699
0.55	1.2878	1.4017	1.4667	1.5095	1.5401	1.5631	1.5811	1.5956	1.6076	1.6176	1.6261	1.6334	1.6405
0.60	1.3153	1.4418	1.5148	1.5632	1.5980	1.6244	1.6450	1.6617	1.6754	1.6870	1.6968	1.7053	1.7128
0.65	1.3430	1.4826	1.5640	1.6188	1.6576	1.6873	1.7109	1.7300	1.7457	1.7589	1.7702	1.7799	1.7885
0.70	1.3709	1.5240	1.6142	1.6749	1.7189	1.7525	1.7790	1.8005	1.8184	1.8334	1.8462	1.8573	1.8671
0.75	1.3990	1.5661	1.6654	1.7327	1.7819	1.8194	1.8492	1.8735	1.8936	1.9106	1.9251	1.9377	1.9495
0.80	1.4274	1.6088	1.7177	1.7921	1.8466	1.8884	1.9217	1.9488	1.9714	1.9905	2.0069	2.0211	2.0342
0.85	1.4560	1.6522	1.7711	1.8528	1.9130	1.9594	1.9964	2.0267	2.0519	2.0733	2.0917	2.1074	2.1217
0.90	1.4848	1.6962	1.8256	1.9151	1.9813	2.0286	2.0735	2.1071	2.1352	2.1590	2.1796	2.1974	2.2128
0.95	1.5138	1.7410	1.8813	1.9789	2.0514	2.1078	2.1531	2.1902	2.2213	2.2478	2.2706	2.2905	2.3085
1.00	1.5431	1.7864	1.9380	2.0442	2.1239	2.1853	2.2350	2.2760	2.3104	2.3397	2.3650	2.3871	2.4073
1.05	1.5726	1.8325	1.9959	2.1110	2.1974	2.2651	2.3196	2.3646	2.4025	2.4348	2.4628	2.4872	2.5091
1.10	1.6023	1.8972	2.0550	2.1795	2.2734	2.3471	2.4068	2.4561	2.4977	2.5332	2.5640	2.5909	2.6150
1.15	1.6323	1.9267	2.1152	2.2496	2.3514	2.4315	2.4966	2.5505	2.5961	2.6351	2.6689	2.6985	2.7248
1.20	1.6625	1.9750	2.1767	2.3214	2.4314	2.5184	2.5882	2.6480	2.6978	2.7404	2.7779	2.8100	2.8378
1.25	1.6929	2.0239	2.2394	2.3948	2.5135	2.6077	2.6846	2.7486	2.8028	2.8494	2.8900	2.9256	2.9573
1.30	1.7235	2.0735	2.3033	2.4700	2.5978	2.6996	2.7828	2.8523	2.9114	2.9622	3.0064	3.0453	3.0799
1.35	1.7544	2.1239	2.3685	2.5469	2.6843	2.7941	2.8841	2.9594	3.0235	3.0787	3.1269	3.1693	3.2070
1.40	1.7856	2.1751	2.4350	2.6256	2.7731	2.8912	2.9883	3.0698	3.1393	3.1993	3.2516	3.2978	3.3380
1.45	1.8169	2.2269	2.5027	2.7061	2.8641	2.9911	3.0957	3.1837	3.2589	3.3239	3.3807	3.4309	3.4757
1.50	1.8486	2.2796	2.5718	2.7885	2.9575	3.0937	3.2063	3.3012	3.3824	3.4527	3.5143	3.5687	3.6171
1.55	1.8804	2.3330	2.6422	2.8727	3.0532	3.1992	3.3202	3.4223	3.5099	3.5859	3.6525	3.7114	3.7638
1.60	1.9123	2.3872	2.7139	2.9589	3.1514	3.3076	3.4374	3.5472	3.6415	3.7235	3.7935	3.8592	3.9187
1.65	1.9444	2.4421	2.7871	3.0470	3.2521	3.4190	3.5580	3.6759	3.7774	3.8657	3.9433	4.0122	4.0737
1.70	1.9775	2.4979	2.8616	3.1371	3.3533	3.5335	3.6822	3.8087	3.9176	4.0126	4.0963	4.1705	4.2365
1.75	2.0109	2.5544	2.9376	3.2293	3.4611	3.6511	3.8100	3.9454	4.0623	4.1644	4.2544	4.3344	4.4065
1.80	2.0434	2.6118	3.0149	3.3234	3.5696	3.7718	3.9415	4.0884	4.2116	4.3212	4.4179	4.5040	4.5807
1.85	2.0767	2.6699	3.0938	3.4197	3.6808	3.8959	4.0768	4.2316	4.3657	4.4831	4.5870	4.6795	4.7628
1.90	2.1103	2.7289	3.1741	3.5181	3.7947	4.0233	4.2160	4.3812	4.5246	4.6504	4.7617	4.8611	4.9507
1.95	2.1441	2.7887	3.2560	3.6187	3.9115	4.1541	4.3592	4.5353	4.6885	4.8231	4.9424	5.0490	5.1553
2.00	2.1782	2.8494	3.3393	3.7215	4.0311	4.2884	4.5065	4.6961	4.8575	5.0014	5.1290	5.2433	5.3473
2.05	2.2129	2.9109	3.4242	3.8265	4.1536	4.4263	4.6579	4.8576	5.0319	5.1854	5.3220	5.4442	5.5550
2.10	2.2471	2.9733	3.5106	3.9339	4.2792	4.5679	4.8137	5.0260	5.2116	5.3754	5.5213	5.6520	5.7691
2.15	2.2820	3.0365	3.5986	4.0435	4.4078	4.7132	4.9738	5.1994	5.3969	5.5716	5.7272	5.8669	5.9938
2.20	2.3171	3.1006	3.6883	4.1555	4.5395	4.8623	5.1384	5.3779	5.5680	5.7404	5.9000	6.0491	6.1888
2.25	2.3524	3.1656	3.7796	4.2700	4.6743	5.0153	5.3076	5.5617	5.7849	5.9628	6.1597	6.3169	6.4573
2.30	2.3880	3.2314	3.8725	4.3868	4.8125	5.1723	5.4816	5.7509	5.9879	6.1983	6.3867	6.5563	6.7100
2.35	2.4239	3.2982	3.9671	4.5062	4.9539	5.3334	5.6604	5.9456	6.1970	6.4207	6.6210	6.8018	6.9664
2.40	2.4600	3.3659	4.0634	4.6281	5.0987	5.4987	5.8441	6.1460	6.4126	6.6500	6.8631	7.0554	7.2307
2.45	2.4964	3.4345	4.1614	4.7526	5.2469	5.6682	6.0329	6.3522	6.6347	6.8866	7.1130	7.3176	7.5034
2.50	2.5331	3.5040	4.2612	4.8797	5.3986	5.8421	6.2268	6.5644	6.8635	7.1306	7.3709	7.5884	7.7859
2.55	2.5700	3.5745	4.3627	5.0095	5.5539	6.0205	6.4261	6.7827	7.0992	7.3823	7.6373	7.8683	8.0783
2.60	2.6072	3.6459	4.4661	5.1420	5.7128	6.2034	6.6308	7.0073	7.3420	7.6418	7.9121	8.1574	8.3819
2.65	2.6447	3.7183	4.5711	5.2773	5.8755	6.3910	6.8411	7.2383	7.5920	7.9093	8.1958	8.4561	8.6938
2.70	2.6824	3.7916	4.6783	5.4154	6.0419	6.5833	7.0571	7.4760	7.8495	8.1852	8.4886	8.7645	9.0163
2.75	2.7205	3.8659	4.7872	5.5563	6.2122	6.7805	7.2789	7.7203	8.1147	8.4695	8.7907	9.0831	9.3507
2.80	2.7587	3.9412	4.8980	5.7001	6.3865	6.9826	7.5066	7.9717	8.3877	8.7626	9.1025	9.4121	9.6958
2.85	2.7973	4.0175	5.0107	5.8469	6.5647	7.1898	7.7405	8.2301	8.6689	9.0648	9.4241	9.7519	10.0526
2.90	2.8361	4.0947	5.1254	5.9967	6.7471	7.4022	7.9806	8.4958	8.9562	9.3761	9.7558	10.1026	10.4288
2.95	2.8752	4.1730	5.2421	6.1495	6.9336	7.6199	8.2271	8.7689	9.2561	9.6969	10.0980	10.4668	10.8166
3.00	2.9146	4.2524	5.3607	6.3055	7.1243	7.8430	8.4801	9.0497	9.5627	10.0275	10.4510	10.8386	11.1844
3.05	2.9542	4.3327	5.4814	6.4666	7.3194	8.0715	8.7398	9.3384	9.8783	10.3682	10.8150	11.2245	11.5858
3.10	2.9942	4.4141	5.6042	6.6269	7.5189	8.3058	9.0064	9.6351	10.2030	10.7191	11.1904	11.6228	11.9918
3.15	3.0344	4.4965	5.7290	6.7923	7.7229	8.5457	9.2799	9.9400	10.5372	11.0406	11.5775	12.0338	12.4144
3.20	3.0749	4.5800	5.8560	6.9614	7.9315	8.7916	9.5606	10.2533	10.8810	11.4529	11.9765	12.4580	12.8591
3.25	3.1156	4.6646	5.9851	7.1337	8.1447	9.0434	9.8487	10.5752	11.2347	11.8364	12.3880	12.8957	13.3111
3.30	3.1567	4.7503	6.1164	7.3093	8.3628	9.3014	10.1442	10.9060	11.5986	12.2313	12.8121	13.3473	13.8132
3.35	3.1981	4.8370	6.2499	7.4885	8.5856	9.5656	10.4474	11.2459	11.9729	12.6380	13.2493	13.8132	14.2938
3.40	3.2397	4.9249	6.3856	7.6712	8.8134	9.8362	10.7585	11.5950	12.3579	13.0568	13.6999	14.2938	14.7895
3.45	3.2816	5.0138	6.5236	7.8576	9.0463	10.1134	11.0775	11.9536	12.7538	13.4880	14.1663	14.7895	15.3009
3.50	3.3238	5.1039	6.6639	8.0475	9.2842	10.3971	11.4047	12.3220	13.1610	13.9319	14.6428	15.3009	15.8282
3.55	3.3663	5.1951	6.8065	8.2412	9.5274	10.6877	11.7404	12.7003	13.5798	14.3888	15.1359	15.8282	16.3721
3.60	3.4091	5.2875	6.9515	8.4387	9.7759	10.9852	12.0845	13.0888	14.0103	14.8592	15.6440	16.3721	16.9328
3.65	3.4522	5.3810	7.0988	8.6400	10.0299	11.2898	12.4375	13.4878	14.4530	15.3433	16.1678	16.9328	17.5111
3.70	3.4956	5.4757	7.2488	8.8452	10.2893	11.6016	12.7994	13.8975	14.9081	15.8416	16.7068	17.5111	18.1072
3.75	3.5393	5.5716	7.4008	9.0544	10.5544	11.9207	13.1704	14.3161	15.3759	16.3544	17.2623	18.1072	18.7218
3.80	3.5833	5.6687	7.5555	9.2676	10.8252	12.2474	13.5508	14.7499	15.8568	16.8820	17.8344	18.7218	19.3554
3.85	3.6275	5.7670	7.7127	9.4848	11.1019	12.5818	13.9408	15.1932					

Tabelle I

t	n	14	15	16	17	18	19	20	21	22	23	24	25
0.05	1.0474	1.0476	1.0479	1.0481	1.0482	1.0484	1.0485	1.0487	1.0488	1.0489	1.0490	1.0490	1.049
0.10	1.0974	1.0972	1.0977	1.0982	1.0985	1.0989	1.0992	1.0995	1.0997	1.1000	1.1002	1.1002	1.100
0.15	1.1480	1.1489	1.1497	1.1504	1.1510	1.1516	1.1521	1.1525	1.1529	1.1533	1.1537	1.154	1.154
0.20	1.2014	1.2027	1.2038	1.2048	1.2057	1.2065	1.2072	1.2079	1.2085	1.2090	1.2095	1.210	1.210
0.25	1.2569	1.2587	1.2602	1.2615	1.2627	1.2638	1.2648	1.2656	1.2665	1.2672	1.2679	1.268	1.268
0.30	1.3147	1.3169	1.3189	1.3206	1.3221	1.3235	1.3248	1.3259	1.3270	1.3279	1.3288	1.328	1.328
0.35	1.3748	1.3775	1.3800	1.3821	1.3841	1.3858	1.3874	1.3888	1.3901	1.3913	1.3924	1.393	1.393
0.40	1.4372	1.4406	1.4436	1.4462	1.4486	1.4507	1.4527	1.4544	1.4560	1.4575	1.4589	1.460	1.460
0.45	1.5022	1.5062	1.5098	1.5130	1.5158	1.5184	1.5207	1.5229	1.5248	1.5266	1.5282	1.529	1.529
0.50	1.5697	1.5745	1.5787	1.5825	1.5859	1.5889	1.5917	1.5942	1.5965	1.5987	1.6006	1.602	1.602
0.55	1.6398	1.6454	1.6504	1.6548	1.6588	1.6624	1.6657	1.6686	1.6714	1.6739	1.6762	1.678	1.678
0.60	1.7127	1.7192	1.7250	1.7301	1.7348	1.7389	1.7427	1.7462	1.7494	1.7523	1.7550	1.757	1.757
0.65	1.7884	1.7959	1.8026	1.8085	1.8138	1.8187	1.8231	1.8271	1.8307	1.8341	1.8372	1.840	1.840
0.70	1.8671	1.8756	1.8832	1.8900	1.8962	1.9017	1.9067	1.9114	1.9156	1.9195	1.9230	1.926	1.926
0.75	1.9487	1.9585	1.9671	1.9749	1.9819	1.9882	1.9939	1.9992	2.0041	2.0085	2.0126	2.016	2.016
0.80	2.0335	2.0446	2.0543	2.0632	2.0711	2.0783	2.0848	2.0908	2.0962	2.1013	2.1060	2.110	2.110
0.85	2.1217	2.1340	2.1451	2.1550	2.1639	2.1720	2.1794	2.1861	2.1923	2.1981	2.2033	2.208	2.208
0.90	2.2131	2.2270	2.2393	2.2504	2.2605	2.2696	2.2779	2.2855	2.2925	2.2989	2.3049	2.310	2.310
0.95	2.3080	2.3235	2.3373	2.3497	2.3609	2.3711	2.3804	2.3890	2.3968	2.4040	2.4107	2.416	2.416
1.00	2.4065	2.4237	2.4391	2.4529	2.4655	2.4768	2.4872	2.4967	2.5055	2.5136	2.5211	2.528	2.528
1.05	2.5087	2.5278	2.5448	2.5602	2.5741	2.5868	2.5984	2.6090	2.6187	2.6278	2.6361	2.643	2.643
1.10	2.6147	2.6358	2.6547	2.6717	2.6872	2.7012	2.7141	2.7258	2.7367	2.7467	2.7560	2.764	2.764
1.15	2.7247	2.7480	2.7688	2.7877	2.8047	2.8202	2.8345	2.8478	2.8599	2.8707	2.8810	2.890	2.890
1.20	2.8388	2.8644	2.8874	2.9081	2.9269	2.9440	2.9597	2.9742	2.9875	2.9998	3.0112	3.021	3.021
1.25	2.9571	2.9852	3.0104	3.0332	3.0539	3.0728	3.0901	3.1060	3.1207	3.1342	3.1468	3.158	3.158
1.30	3.0798	3.1105	3.1382	3.1632	3.1859	3.2067	3.2257	3.2432	3.2593	3.2749	3.2882	3.301	3.301
1.35	3.2070	3.2406	3.2709	3.2983	3.3232	3.3459	3.3668	3.3860	3.4037	3.4201	3.4354	3.449	3.449
1.40	3.3388	3.3755	3.4086	3.4385	3.4657	3.4906	3.5135	3.5345	3.5540	3.5720	3.5887	3.604	3.604
1.45	3.4755	3.5155	3.5513	3.5842	3.6139	3.6411	3.6661	3.6891	3.7103	3.7301	3.7484	3.765	3.765
1.50	3.6172	3.6606	3.6998	3.7354	3.7678	3.7975	3.8247	3.8498	3.8731	3.8947	3.9148	3.933	3.933
1.55	3.7640	3.8112	3.8538	3.8924	3.9277	3.9600	3.9897	4.0171	4.0424	4.0660	4.0879	4.108	4.108
1.60	3.9161	3.9673	4.0135	4.0554	4.0937	4.1289	4.1612	4.1910	4.2186	4.2443	4.2682	4.290	4.290
1.65	4.0737	4.1291	4.1791	4.2246	4.2662	4.3043	4.3394	4.3719	4.4019	4.4299	4.4559	4.480	4.480
1.70	4.2370	4.2968	4.3510	4.4002	4.4453	4.4866	4.5247	4.5599	4.5926	4.6229	4.6512	4.677	4.677
1.75	4.4061	4.4707	4.5292	4.5825	4.6312	4.6760	4.7173	4.7555	4.7909	4.8238	4.8546	4.883	4.883
1.80	4.5812	4.6509	4.7140	4.7716	4.8243	4.8727	4.9174	4.9587	4.9971	5.0329	5.0662	5.097	5.097
1.85	4.7626	4.8376	4.9057	4.9678	5.0247	5.0770	5.1253	5.1700	5.2116	5.2503	5.2864	5.320	5.320
1.90	4.9504	5.0311	5.1044	5.1713	5.2327	5.2892	5.3413	5.3897	5.4346	5.4764	5.5155	5.552	5.552
1.95	5.1448	5.2315	5.3104	5.3825	5.4486	5.5095	5.5657	5.6179	5.6664	5.7116	5.7539	5.793	5.793
2.00	5.3461	5.4392	5.5240	5.6015	5.6726	5.7382	5.7988	5.8551	5.9074	5.9563	6.0019	6.044	6.044
2.05	5.5544	5.6543	5.7453	5.8286	5.9051	5.9756	6.0409	6.1015	6.1580	6.2106	6.2599	6.306	6.306
2.10	5.7700	5.8771	5.9747	6.0641	6.1463	6.2221	6.2924	6.3576	6.4183	6.4751	6.5282	6.578	6.578
2.15	5.9932	6.1078	6.2124	6.3082	6.3965	6.4779	6.5534	6.6236	6.6890	6.7500	6.8072	6.860	6.860
2.20	6.2240	6.3467	6.4587	6.5614	6.6560	6.7435	6.8245	6.8999	6.9702	7.0359	7.0974	7.155	7.155
2.25	6.4629	6.5940	6.7138	6.8238	6.9252	7.0190	7.1060	7.1869	7.2624	7.3330	7.3991	7.461	7.461
2.30	6.7100	6.8501	6.9782	7.0959	7.2044	7.3049	7.3981	7.4849	7.5659	7.6418	7.7129	7.779	7.779
2.35	6.9657	7.1151	7.2520	7.3778	7.4939	7.6015	7.7014	7.7944	7.8813	7.9627	8.0390	8.110	8.110
2.40	7.2301	7.3895	7.5356	7.6700	7.7942	7.9092	8.0161	8.1158	8.2089	8.2962	8.3780	8.455	8.455
2.45	7.5035	7.6734	7.8292	7.9728	8.1054	8.2284	8.3428	8.4495	8.5492	8.6427	8.7305	8.813	8.813
2.50	7.7863	7.9672	8.1334	8.2865	8.4281	8.5595	8.6818	8.7959	8.9026	9.0027	9.0967	9.185	9.185
2.55	8.0787	8.2713	8.4423	8.6115	8.7626	8.9029	9.0333	9.1555	9.2696	9.3767	9.4774	9.572	9.572
2.60	8.3810	8.5859	8.7743	8.9482	9.1093	9.2590	9.3984	9.5287	9.6507	9.7652	9.8729	9.974	9.974
2.65	8.6936	8.9113	9.1118	9.2970	9.4688	9.6282	9.7770	9.9161	10.0464	10.1688	10.2840	10.392	10.392
2.70	9.0166	9.2480	9.4611	9.6582	9.8410	10.0111	10.1697	10.3181	10.4573	10.5880	10.7110	10.827	10.827
2.75	9.3505	9.5962	9.8227	10.0323	10.2269	10.4080	10.5771	10.7353	10.8837	11.0233	11.1546	11.278	11.278
2.80	9.6957	9.9563	10.1969	10.4197	10.6266	10.8195	10.9996	11.1682	11.3264	11.4753	11.6155	11.747	11.747
2.85	10.0523	10.3288	10.5842	10.8208	11.0409	11.2460	11.4377	11.6173	11.7859	11.9446	12.0942	12.235	12.235
2.90	10.4208	10.7139	10.9848	11.2362	11.4699	11.6880	11.8920	12.0832	12.2628	12.4319	12.5914	12.742	12.742
2.95	10.8016	11.1121	11.3994	11.6661	11.9144	12.1462	12.3631	12.5665	12.7577	12.9378	13.1078	13.268	13.268
3.00	11.1950	11.5298	11.8283	12.1112	12.3748	12.6209	12.8515	13.0678	13.2713	13.4631	13.6441	13.815	13.815
3.05	11.6013	11.9494	12.2720	12.5719	12.8515	13.1129	13.3578	13.5877	13.8042	14.0082	14.2009	14.383	14.383
3.10	12.0211	12.3894	12.7310	13.0488	13.3453	13.6226	13.8826	14.1270	14.3570	14.5740	14.7791	14.973	14.973
3.15	12.4547	12.8441	13.2056	13.5422	13.8565	14.1507	14.4267	14.6862	14.9306	15.1612	15.3793	15.585	15.585
3.20	12.9024	13.3140	13.6985	14.0529	14.3859	14.6978	14.9906	15.2659	15.5255	15.7706	16.0024	16.222	16.222
3.25	13.3648	13.7997	14.2041	14.5813	14.9339	15.2645	15.5749	15.8671	16.1426	16.4029	16.6493	16.882	16.882
3.30	13.8423	14.3016	14.7290	15.1280	15.5013	15.8514	16.1804	16.4903	16.7827	17.0590	17.3207	17.568	17.568
3.35	14.3352	14.8201	15.2718	15.6936	16.0886	16.4593	16.8079	17.1364	17.4465	17.7397	18.0175	18.281	18.281
3.40	14.8442	15.3558	15.8328	16.2787	16.6965	17.0888	17.4580	17.8061	18.1348	18.4459	18.7407	19.020	19.020
3.45	15.3696	15.9093	16.4129	16.8840	17.3256	17.7407	18.1315	18.5002	18.8486	19.1784	19.4911	19.788	19.788
3.50	15.9119	16.4810	17.0124	17.5099	17.9767	18.4157	18.8292	19.2196	19.5887	19.9383	20.2699	20.584	20.584
3.55	16.4717	17.0715	17.6321	18.1573	18.6505	19.1145	19.5519	19.9651	20.3560	20.7264	21.0779	21.411	21.411
3.60	17.0494	17.6814	18.2726	18.8268	19.3476	19.8380	20.3005	20.7376	21.1514	21.5437	21.9161	22.270	22.270
3.65	17.6456	18.3113	18.9345	19.5191	20.0689	20.5869	21.0758	21.5381	21.9760	22.3913	22.7858	23.161	23.161
3.70	18.2609	18.9617	19.6184	20.2350	20.8151	21.3621	21.8787	22.3675	22.8306	23.2702	23.6879	24.084	24.084
3.75	18.8957	19.6334	20.3250	20.9750	21.5871	22.1645	22.7102	23.2267	23.7165	24.1815	24.6236	25.046	25.046
3.80	19.5507	20.3268	21.0552	21.7401	22.3856	22.9949	23.5711	24.1168	24.6345	25.1263	25.5942	26.039	26.039
3.85	20.2264	21.0427	21.8095	22.5311	23.2115	23.85							

Tabelle I

t	n	26	27	28	29	30	31	32	33	34	35	36	37
0.05		1.0492	1.0492	1.0493	1.0494	1.0494	1.0495	1.0496	1.0496	1.0497	1.0497	1.0497	1.0498
0.10		1.1006	1.1007	1.1009	1.1010	1.1012	1.1013	1.1014	1.1015	1.1016	1.1017	1.1018	1.1019
0.15		1.1543	1.1545	1.1548	1.1550	1.1553	1.1555	1.1557	1.1559	1.1560	1.1562	1.1563	1.1565
0.20		1.2104	1.2108	1.2112	1.2115	1.2118	1.2121	1.2124	1.2127	1.2130	1.2132	1.2134	1.2136
0.25		1.2691	1.2696	1.2701	1.2706	1.2710	1.2714	1.2718	1.2722	1.2725	1.2728	1.2731	1.2734
0.30		1.3304	1.3311	1.3317	1.3323	1.3329	1.3334	1.3339	1.3344	1.3348	1.3352	1.3356	1.3360
0.35		1.3944	1.3953	1.3961	1.3969	1.3976	1.3982	1.3989	1.3995	1.4000	1.4005	1.4010	1.4015
0.40		1.4613	1.4624	1.4634	1.4643	1.4652	1.4660	1.4668	1.4675	1.4682	1.4689	1.4695	1.4701
0.45		1.5311	1.5325	1.5337	1.5348	1.5359	1.5369	1.5378	1.5387	1.5395	1.5403	1.5411	1.5418
0.50		1.6041	1.6057	1.6071	1.6085	1.6097	1.6109	1.6121	1.6131	1.6141	1.6151	1.6159	1.6168
0.55		1.6803	1.6821	1.6838	1.6854	1.6869	1.6883	1.6897	1.6909	1.6921	1.6932	1.6943	1.6953
0.60		1.7598	1.7619	1.7640	1.7658	1.7676	1.7692	1.7708	1.7723	1.7736	1.7749	1.7762	1.7774
0.65		1.8428	1.8453	1.8476	1.8498	1.8518	1.8538	1.8556	1.8573	1.8589	1.8604	1.8618	1.8632
0.70		1.9294	1.9323	1.9350	1.9376	1.9399	1.9421	1.9442	1.9462	1.9481	1.9498	1.9515	1.9531
0.75		2.0199	2.0232	2.0263	2.0292	2.0319	2.0344	2.0368	2.0391	2.0412	2.0432	2.0451	2.0470
0.80		2.1143	2.1181	2.1216	2.1249	2.1279	2.1308	2.1336	2.1361	2.1386	2.1409	2.1431	2.1451
0.85		2.2128	2.2171	2.2210	2.2248	2.2283	2.2315	2.2346	2.2376	2.2403	2.2430	2.2456	2.2478
0.90		2.3155	2.3203	2.3248	2.3290	2.3330	2.3367	2.3402	2.3435	2.3467	2.3496	2.3524	2.3551
0.95		2.4227	2.4281	2.4332	2.4379	2.4424	2.4466	2.4505	2.4542	2.4578	2.4611	2.4643	2.4673
1.00		2.5345	2.5406	2.5462	2.5516	2.5565	2.5612	2.5657	2.5699	2.5738	2.5776	2.5812	2.5845
1.05		2.6511	2.6579	2.6642	2.6702	2.6757	2.6810	2.6860	2.6906	2.6951	2.6993	2.7033	2.7071
1.10		2.7727	2.7803	2.7873	2.7939	2.8002	2.8060	2.8116	2.8168	2.8217	2.8264	2.8309	2.8351
1.15		2.8995	2.9079	2.9157	2.9231	2.9300	2.9365	2.9427	2.9485	2.9540	2.9593	2.9642	2.9689
1.20		3.0317	3.0410	3.0497	3.0578	3.0655	3.0727	3.0796	3.0861	3.0922	3.0980	3.1035	3.1088
1.25		3.1695	3.1798	3.1894	3.1984	3.2069	3.2149	3.2225	3.2297	3.2364	3.2429	3.2490	3.2548
1.30		3.3132	3.3245	3.3351	3.3451	3.3544	3.3633	3.3717	3.3796	3.3871	3.3942	3.4010	3.4074
1.35		3.4429	3.4754	3.4870	3.4980	3.5084	3.5181	3.5273	3.5361	3.5444	3.5522	3.5597	3.5668
1.40		3.6190	3.6326	3.6455	3.6576	3.6689	3.6797	3.6898	3.6994	3.7086	3.7172	3.7254	3.7333
1.45		3.7816	3.7966	3.8107	3.8239	3.8364	3.8482	3.8594	3.8699	3.8800	3.8895	3.8985	3.9072
1.50		3.9510	3.9674	3.9829	3.9974	4.0111	4.0240	4.0363	4.0479	4.0589	4.0693	4.0793	4.0887
1.55		4.1275	4.1455	4.1624	4.1783	4.1933	4.2074	4.2208	4.2335	4.2456	4.2570	4.2679	4.2783
1.60		4.3114	4.3310	4.3495	4.3668	4.3832	4.3987	4.4134	4.4273	4.4405	4.4530	4.4649	4.4763
1.65		4.5030	4.5244	4.5445	4.5634	4.5813	4.5982	4.6142	4.6294	4.6438	4.6575	4.6706	4.6830
1.70		4.7025	4.7258	4.7477	4.7693	4.7878	4.8062	4.8237	4.8402	4.8560	4.8709	4.8852	4.8988
1.75		4.9103	4.9356	4.9594	4.9819	5.0031	5.0232	5.0422	5.0602	5.0773	5.0937	5.1092	5.1240
1.80		5.1267	5.1541	5.1800	5.2044	5.2275	5.2493	5.2700	5.2896	5.3083	5.3260	5.3430	5.3591
1.85		5.3520	5.3818	5.4099	5.4364	5.4614	5.4851	5.5076	5.5289	5.5492	5.5685	5.5869	5.6045
1.90		5.5865	5.6188	5.6493	5.6780	5.7052	5.7309	5.7553	5.7785	5.8005	5.8215	5.8415	5.8606
1.95		5.8307	5.8657	5.8987	5.9298	5.9592	5.9871	6.0136	6.0387	6.0626	6.0854	6.1071	6.1278
2.00		6.0849	6.1227	6.1584	6.1921	6.2239	6.2541	6.2828	6.3100	6.3359	6.3606	6.3841	6.4066
2.05		6.3495	6.3903	6.4289	6.4653	6.4998	6.5324	6.5634	6.5929	6.6210	6.6477	6.6732	6.6976
2.10		6.6248	6.6689	6.7106	6.7499	6.7871	6.8224	6.8560	6.8878	6.9182	6.9471	6.9747	7.0011
2.15		6.9114	6.9589	7.0038	7.0463	7.0865	7.1246	7.1608	7.1953	7.2281	7.2593	7.2892	7.3177
2.20		7.2096	7.2608	7.3092	7.3550	7.3983	7.4395	7.4786	7.5157	7.5512	7.5849	7.6172	7.6480
2.25		7.5198	7.5750	7.6271	7.6764	7.7231	7.7675	7.8096	7.8498	7.8880	7.9244	7.9592	7.9925
2.30		7.8426	7.9019	7.9580	8.0111	8.0614	8.1092	8.1546	8.1979	8.2391	8.2784	8.3159	8.3518
2.35		8.1784	8.2422	8.3025	8.3596	8.4137	8.4652	8.5141	8.5606	8.6050	8.6474	8.6879	8.7266
2.40		8.5276	8.5962	8.6610	8.7223	8.7806	8.8359	8.8885	8.9386	8.9864	9.0320	9.0756	9.1173
2.45		8.8909	8.9645	9.0341	9.1000	9.1626	9.2220	9.2786	9.3325	9.3839	9.4330	9.4799	9.5248
2.50		9.2667	9.3476	9.4253	9.4991	9.5693	9.6241	9.6849	9.7428	9.7981	9.8509	9.9014	9.9497
2.55		9.6617	9.7462	9.8263	9.9022	9.9743	10.0428	10.1081	10.1703	10.2297	10.2864	10.3407	10.3926
2.60		10.0702	10.1608	10.2466	10.3280	10.4053	10.4788	10.5488	10.6156	10.6794	10.7403	10.7986	10.8545
2.65		10.4950	10.5920	10.6839	10.7711	10.8539	10.9327	11.0078	11.0795	11.1479	11.2133	11.2759	11.3358
2.70		10.9367	11.0404	11.1388	11.2321	11.3208	11.4053	11.4859	11.5626	11.6360	11.7061	11.7733	11.8376
2.75		11.3958	11.5067	11.6119	11.7118	11.8069	11.8973	11.9835	12.0658	12.1444	12.2196	12.2916	12.3606
2.80		11.8731	11.9916	12.1041	12.2110	12.3126	12.4094	12.5017	12.5898	12.6740	12.7546	12.8317	12.9057
2.85		12.3691	12.4958	12.6160	12.7302	12.8389	12.9424	13.0411	13.1354	13.2256	13.3118	13.3945	13.4737
2.90		12.8848	13.0200	13.1483	13.2703	13.3864	13.4971	13.6027	13.7035	13.8000	13.8923	13.9804	14.0656
2.95		13.4206	13.5649	13.7018	13.8321	13.9561	14.0744	14.1872	14.2950	14.3982	14.4969	14.5916	14.6824
3.00		13.9774	14.1312	14.2774	14.4164	14.5488	14.6751	14.7956	14.9108	15.0211	15.1267	15.2279	15.3250
3.05		14.5560	14.7199	14.8758	15.0240	15.1653	15.3001	15.4288	15.5519	15.6697	15.7825	15.8907	15.9946
3.10		15.1571	15.3318	15.4979	15.6560	15.8067	15.9504	16.0878	16.2192	16.3450	16.4655	16.5811	16.6921
3.15		15.7816	15.9677	16.1444	16.3131	16.4737	16.6270	16.7736	16.9138	17.0480	17.1767	17.3001	17.4187
3.20		16.4304	16.6284	16.8168	16.9963	17.1674	17.3309	17.4871	17.6366	17.7799	17.9172	18.0484	18.1735
3.25		17.1043	17.3150	17.5155	17.7066	17.8889	18.0630	18.2296	18.3890	18.5417	18.6882	18.8287	18.9630
3.30		17.8043	18.0284	18.2417	18.4450	18.6391	18.8246	19.0020	19.1718	19.3346	19.4908	19.6407	19.7848
3.35		18.5313	18.7695	18.9963	19.2127	19.4192	19.6166	19.8056	19.9865	20.1599	20.3264	20.4862	20.6399
3.40		19.2864	19.5394	19.7809	20.0106	20.2303	20.4404	20.6415	20.8341	21.0188	21.1962	21.3665	21.5303
3.45		20.0704	20.3392	20.5954	20.8399	21.0736	21.2970	21.5110	21.7160	21.9127	22.1015	22.2829	22.4574
3.50		20.8845	21.1699	21.4420	21.7019	21.9502	22.1878	22.4153	22.6335	22.8428	23.0438	23.2370	23.4228
3.55		21.7298	22.0327	22.3216	22.5974	22.8615	23.1140	23.3559	23.5879	23.8106	24.0244	24.2301	24.4279
3.60		22.6074	22.9287	23.2354	23.5284	23.8087	24.0770	24.3341	24.5807	24.8175	25.0450	25.2638	25.4743
3.65		23.5184	23.8593	24.1846	24.4956	24.7932	25.0781	25.3513	25.6134	25.8651	26.1070	26.3397	26.5637
3.70		24.4642	24.8255	25.1706	25.5005	25.8163	26.1189	26.4090	26.6874	26.9549	27.2120	27.4584	27.6976
3.75		25.4458	25.8288	26.1947	26.5446	26.8796	27.2007	27.5087	27.8044	28.0885	28.3618	28.6247	28.8780
3.80		26.4647	26.8704	27.2582	27.6292	27.9846	28.3252	28.6521	28.9660	29.2677	29.5574	29.8373	30.1069
3.85		27.5222	27.9519	28.3627	28.7560	29.1327	29.4940	29.8408	30.1739	30.4942	30.8024	31.0991	31.3851
3.90		28.6196	29.0745	29.5096	29.9263	30.3256	30.7087	31.0765	31.4299	31.7698	32.0969	32.4120	32.7157
3.95		29.7583	30.2398	30.7006	31.1419	31.5650	31.9710	32.3610	32.7358	33.0964	33.44		

Tabelle I

t	n	38	39	40	41	42	43	44	45	46	47	48	49
0.05	1.0498	1.0499	1.0499	1.0499	1.0500	1.0500	1.0500	1.0500	1.0501	1.0501	1.0501	1.0501	1.050
0.10	1.1020	1.1021	1.1022	1.1022	1.1023	1.1024	1.1024	1.1024	1.1025	1.1025	1.1026	1.1027	1.102
0.15	1.1566	1.1568	1.1569	1.1570	1.1571	1.1572	1.1573	1.1574	1.1575	1.1576	1.1577	1.1577	1.157
0.20	1.2138	1.2140	1.2142	1.2144	1.2145	1.2147	1.2148	1.2150	1.2151	1.2153	1.2154	1.2154	1.215
0.25	1.2737	1.2740	1.2742	1.2744	1.2747	1.2749	1.2751	1.2753	1.2755	1.2756	1.2758	1.2758	1.276
0.30	1.3364	1.3367	1.3370	1.3373	1.3376	1.3379	1.3382	1.3384	1.3387	1.3389	1.3391	1.3391	1.339
0.35	1.4020	1.4024	1.4028	1.4032	1.4035	1.4039	1.4042	1.4046	1.4049	1.4052	1.4054	1.4054	1.405
0.40	1.4706	1.4711	1.4716	1.4721	1.4726	1.4730	1.4734	1.4738	1.4742	1.4746	1.4749	1.4749	1.475
0.45	1.5424	1.5431	1.5437	1.5443	1.5448	1.5453	1.5459	1.5463	1.5468	1.5472	1.5477	1.5477	1.548
0.50	1.6176	1.6184	1.6191	1.6198	1.6204	1.6211	1.6217	1.6223	1.6228	1.6233	1.6239	1.6239	1.624
0.55	1.6962	1.6971	1.6980	1.6988	1.6996	1.7004	1.7011	1.7018	1.7024	1.7029	1.7036	1.7036	1.704
0.60	1.7785	1.7795	1.7806	1.7815	1.7824	1.7833	1.7842	1.7850	1.7857	1.7865	1.7872	1.7872	1.787
0.65	1.8645	1.8657	1.8669	1.8681	1.8691	1.8701	1.8711	1.8721	1.8730	1.8739	1.8747	1.8747	1.875
0.70	1.9546	1.9560	1.9574	1.9587	1.9599	1.9611	1.9622	1.9633	1.9643	1.9653	1.9663	1.9663	1.967
0.75	2.0487	2.0503	2.0519	2.0534	2.0548	2.0562	2.0575	2.0587	2.0599	2.0611	2.0622	2.0622	2.063
0.80	2.1471	2.1490	2.1508	2.1525	2.1541	2.1557	2.1572	2.1586	2.1600	2.1615	2.1626	2.1626	2.163
0.85	2.2500	2.2522	2.2542	2.2562	2.2580	2.2598	2.2615	2.2631	2.2647	2.2662	2.2676	2.2676	2.269
0.90	2.3577	2.3601	2.3624	2.3646	2.3667	2.3687	2.3706	2.3725	2.3743	2.3760	2.3776	2.3776	2.379
0.95	2.4702	2.4729	2.4755	2.4780	2.4804	2.4826	2.4848	2.4869	2.4889	2.4908	2.4927	2.4927	2.494
1.00	2.5878	2.5908	2.5938	2.5966	2.5992	2.6018	2.6042	2.6066	2.6089	2.6110	2.6131	2.6131	2.615
1.05	2.7107	2.7141	2.7174	2.7206	2.7236	2.7264	2.7292	2.7318	2.7343	2.7368	2.7391	2.7391	2.741
1.10	2.8392	2.8430	2.8467	2.8502	2.8536	2.8568	2.8598	2.8628	2.8656	2.8683	2.8710	2.8710	2.873
1.15	2.9734	2.9777	2.9818	2.9857	2.9895	2.9931	2.9965	2.9998	3.0029	3.0060	3.0089	3.0089	3.011
1.20	3.1138	3.1185	3.1231	3.1274	3.1316	3.1356	3.1394	3.1431	3.1466	3.1500	3.1532	3.1532	3.156
1.25	3.2604	3.2657	3.2707	3.2755	3.2802	3.2846	3.2888	3.2929	3.2968	3.3006	3.3042	3.3042	3.307
1.30	3.4136	3.4194	3.4250	3.4304	3.4355	3.4404	3.4451	3.4496	3.4539	3.4581	3.4621	3.4621	3.465
1.35	3.5736	3.5801	3.5862	3.5921	3.5978	3.6032	3.6084	3.6134	3.6182	3.6228	3.6272	3.6272	3.631
1.40	3.7408	3.7479	3.7547	3.7612	3.7675	3.7735	3.7792	3.7847	3.7900	3.7951	3.8000	3.8000	3.804
1.45	3.9154	3.9232	3.9307	3.9379	3.9448	3.9514	3.9577	3.9638	3.9696	3.9752	3.9806	3.9806	3.985
1.50	4.0978	4.1064	4.1146	4.1225	4.1301	4.1373	4.1443	4.1510	4.1574	4.1635	4.1695	4.1695	4.175
1.55	4.2883	4.2977	4.3068	4.3154	4.3237	4.3317	4.3393	4.3466	4.3537	4.3605	4.3670	4.3670	4.373
1.60	4.4872	4.4975	4.5074	4.5169	4.5260	4.5347	4.5431	4.5512	4.5589	4.5663	4.5735	4.5735	4.580
1.65	4.6949	4.7062	4.7171	4.7274	4.7374	4.7469	4.7561	4.7649	4.7734	4.7815	4.7894	4.7894	4.796
1.70	4.9117	4.9241	4.9360	4.9473	4.9582	4.9686	4.9787	4.9885	4.9976	5.0065	5.0150	5.0150	5.023
1.75	5.1382	5.1517	5.1644	5.1770	5.1899	5.2023	5.2142	5.2257	5.2369	5.2476	5.2580	5.2580	5.266
1.80	5.3745	5.3893	5.4034	5.4169	5.4298	5.4422	5.4542	5.4657	5.4767	5.4873	5.4976	5.4976	5.507
1.85	5.6213	5.6373	5.6526	5.6674	5.6815	5.6950	5.7080	5.7205	5.7325	5.7441	5.7553	5.7553	5.766
1.90	5.8788	5.8962	5.9129	5.9289	5.9443	5.9590	5.9732	5.9868	5.9999	6.0125	6.0247	6.0247	6.036
1.95	6.1476	6.1665	6.1847	6.2021	6.2187	6.2348	6.2502	6.2650	6.2792	6.2929	6.3062	6.3062	6.318
2.00	6.4281	6.4487	6.4684	6.4872	6.5053	6.5227	6.5395	6.5555	6.5710	6.5859	6.6003	6.6003	6.614
2.05	6.7208	6.7431	6.7645	6.7849	6.8046	6.8235	6.8416	6.8591	6.8759	6.8921	6.9077	6.9077	6.922
2.10	7.0263	7.0504	7.0736	7.0957	7.1170	7.1375	7.1572	7.1761	7.1943	7.2119	7.2288	7.2288	7.245
2.15	7.3450	7.3711	7.3961	7.4202	7.4432	7.4654	7.4867	7.5072	7.5269	7.5460	7.5643	7.5643	7.582
2.20	7.6775	7.7057	7.7328	7.7588	7.7837	7.8077	7.8308	7.8529	7.8743	7.8949	7.9148	7.9148	7.934
2.25	8.0244	8.0549	8.0841	8.1122	8.1392	8.1651	8.1900	8.2140	8.2371	8.2594	8.2810	8.2810	8.301
2.30	8.3862	8.4191	8.4507	8.4810	8.5102	8.5382	8.5651	8.5911	8.6160	8.6401	8.6634	8.6634	8.689
2.35	8.7636	8.7992	8.8332	8.8660	8.8974	8.9276	8.9567	8.9847	9.0117	9.0377	9.0629	9.0629	9.088
2.40	9.1573	9.1956	9.2323	9.2676	9.3015	9.3341	9.3655	9.3957	9.4248	9.4530	9.4801	9.4801	9.506
2.45	9.5678	9.6091	9.6487	9.6867	9.7232	9.7583	9.7922	9.8248	9.8562	9.8865	9.9158	9.9158	9.944
2.50	9.9960	10.0404	10.0830	10.1239	10.1632	10.2011	10.2376	10.2727	10.3066	10.3393	10.3709	10.3709	10.401
2.55	10.4424	10.4901	10.5360	10.5801	10.6225	10.6632	10.7025	10.7403	10.7768	10.8120	10.8460	10.8460	10.881
2.60	10.9080	10.9593	11.0086	11.0559	11.1015	11.1454	11.1876	11.2283	11.2676	11.3055	11.3421	11.3421	11.377
2.65	11.3933	11.4484	11.5014	11.5523	11.6013	11.6485	11.6939	11.7377	11.7801	11.8207	11.8601	11.8601	11.899
2.70	11.8993	11.9585	12.0154	12.0701	12.1227	12.1733	12.2222	12.2692	12.3147	12.3585	12.4009	12.4009	12.441
2.75	12.4248	12.4903	12.5513	12.6081	12.6618	12.7124	12.7610	12.8080	12.8526	12.8949	12.9355	12.9355	12.977
2.80	12.9766	13.0447	13.1102	13.1732	13.2338	13.2922	13.3485	13.4028	13.4553	13.5059	13.5548	13.5548	13.602
2.85	13.5497	13.6228	13.6930	13.7605	13.8255	13.8882	13.9486	14.0068	14.0631	14.1174	14.1700	14.1700	14.220
2.90	14.1471	14.2253	14.3009	14.3729	14.4424	14.5098	14.5743	14.6370	14.6974	14.7557	14.8121	14.8121	14.866
2.95	14.7696	14.8513	14.9339	15.0114	15.0841	15.1581	15.2275	15.2945	15.3592	15.4218	15.4822	15.4822	15.540
3.00	15.4183	15.5080	15.5942	15.6772	15.7572	15.8343	15.9086	15.9804	16.0498	16.1168	16.1816	16.1816	16.244
3.05	16.0943	16.1902	16.2825	16.3713	16.4569	16.5394	16.6191	16.6960	16.7702	16.8420	16.9115	16.9115	16.978
3.10	16.7987	16.9012	17.0016	17.0999	17.1949	17.2865	17.3748	17.4600	17.5423	17.6219	17.6987	17.6987	17.775
3.15	17.5326	17.6422	17.7476	17.8492	17.9471	18.0416	18.1328	18.2208	18.3059	18.3882	18.4678	18.4678	18.544
3.20	18.2972	18.4142	18.5269	18.6355	18.7401	18.8411	18.9386	19.0328	19.1238	19.2119	19.2970	19.2970	19.379
3.25	19.0937	19.2187	19.3390	19.4550	19.5668	19.6747	19.7789	19.8796	19.9769	20.0711	20.1622	20.1622	20.250
3.30	19.9234	20.0568	20.1852	20.3091	20.4285	20.5438	20.6551	20.7627	20.8667	20.9673	21.0647	21.0647	21.159
3.35	20.7877	20.9299	21.0670	21.1992	21.3267	21.4497	21.5686	21.6835	21.7947	21.9022	22.0063	22.0063	22.107
3.40	21.6878	21.8396	21.9858	22.1268	22.2628	22.3941	22.5211	22.6437	22.7624	22.8773	22.9885	22.9885	23.096
3.45	22.6254	22.7871	22.9430	23.0933	23.2384	23.3786	23.5140	23.6449	23.7716	23.8942	24.0130	24.0130	24.128
3.50	23.6017	23.7740	23.9402	24.1005	24.2552	24.4046	24.5491	24.6888	24.8239	24.9548	25.0815	25.0815	25.204
3.55	24.6184	24.8020	24.9790	25.1498	25.3147	25.4740	25.6280	25.7770	25.9212	26.0608	26.1960	26.1960	26.327
3.60	25.6771	25.8726	26.0611	26.2430	26.4187	26.5885	26.7528	26.9114	27.0652	27.2141	27.3583	27.3583	27.498
3.65	26.7795	26.9875	27.1882	27.3819	27.5690	27.7499	27.9248	28.0940	28.2579	28.4166	28.5704	28.5704	28.719
3.70	27.9272	28.1485	28.3621	28.5683	28.7675	28.9601	29.1464	29.3267	29.5013	29.6704	29.8344	29.8344	29.993
3.75	29.1221	29.3575	29.5847	29.8041	30.0162	30.2212	30.4195	30.6115	30.7975	30.9777	31.1523	31.1523	31.321
3.80	30.3660	30.6163	30.8579	31.0913	31.3169	31.5351	31.7462	31.9506	32.1486	32.3405	32.5265	32.5265	32.707
3.85	31.6608	31.9269	32.1830	32.430									

Tablelle I

t	n	90	95	60	65	70	75	80	85	90	95	100	105
0.05	1.0502	1.0503	1.0504	1.0504	1.0505	1.0505	1.0505	1.0506	1.0506	1.0507	1.0507	1.0507	1.0507
0.10	1.1028	1.1030	1.1032	1.1033	1.1034	1.1036	1.1036	1.1037	1.1037	1.1038	1.1039	1.1040	1.1040
0.15	1.1579	1.1582	1.1585	1.1588	1.1590	1.1592	1.1593	1.1595	1.1596	1.1597	1.1598	1.1598	1.1599
0.20	1.2156	1.2161	1.2166	1.2169	1.2173	1.2175	1.2176	1.2180	1.2182	1.2183	1.2185	1.2185	1.2186
0.25	1.2761	1.2768	1.2774	1.2779	1.2784	1.2787	1.2791	1.2796	1.2796	1.2798	1.2798	1.2800	1.2802
0.30	1.3395	1.3405	1.3412	1.3419	1.3424	1.3429	1.3434	1.3437	1.3437	1.3441	1.3444	1.3446	1.3449
0.35	1.4060	1.4071	1.4081	1.4089	1.4097	1.4103	1.4108	1.4113	1.4113	1.4117	1.4121	1.4124	1.4128
0.40	1.4756	1.4770	1.4782	1.4792	1.4801	1.4809	1.4816	1.4822	1.4822	1.4827	1.4832	1.4836	1.4840
0.45	1.5485	1.5502	1.5517	1.5529	1.5540	1.5549	1.5558	1.5565	1.5565	1.5571	1.5577	1.5582	1.5587
0.50	1.6248	1.6269	1.6287	1.6302	1.6319	1.6326	1.6336	1.6343	1.6343	1.6352	1.6359	1.6366	1.6371
0.55	1.7048	1.7073	1.7094	1.7112	1.7127	1.7140	1.7152	1.7162	1.7162	1.7172	1.7180	1.7187	1.7194
0.60	1.7885	1.7915	1.7939	1.7960	1.7978	1.7994	1.8008	1.8020	1.8020	1.8031	1.8041	1.8049	1.8057
0.65	1.8763	1.8797	1.8824	1.8850	1.8871	1.8890	1.8906	1.8920	1.8920	1.8933	1.8944	1.8955	1.8964
0.70	1.9681	1.9721	1.9754	1.9793	1.9830	1.9868	1.9904	1.9941	1.9941	1.9979	1.9992	1.9996	1.9995
0.75	2.0643	2.0689	2.0727	2.0760	2.0788	2.0813	2.0834	2.0853	2.0853	2.0870	2.0886	2.0900	2.0912
0.80	2.1650	2.1702	2.1746	2.1784	2.1816	2.1844	2.1869	2.1891	2.1891	2.1911	2.1928	2.1944	2.1959
0.85	2.2703	2.2763	2.2813	2.2856	2.2893	2.2926	2.2956	2.2979	2.2979	2.3001	2.3022	2.3040	2.3056
0.90	2.3807	2.3875	2.3932	2.3980	2.4022	2.4059	2.4091	2.4120	2.4120	2.4145	2.4168	2.4189	2.4208
0.95	2.4962	2.5038	2.5103	2.5158	2.5206	2.5247	2.5284	2.5316	2.5316	2.5345	2.5371	2.5395	2.5416
1.00	2.6170	2.6257	2.6330	2.6392	2.6445	2.6492	2.6534	2.6570	2.6570	2.6603	2.6632	2.6659	2.6683
1.05	2.7435	2.7532	2.7614	2.7684	2.7745	2.7797	2.7844	2.7885	2.7885	2.7922	2.7955	2.7985	2.8012
1.10	2.8759	2.8868	2.8959	2.9038	2.9106	2.9165	2.9217	2.9263	2.9263	2.9305	2.9342	2.9376	2.9406
1.15	3.0144	3.0266	3.0388	3.0456	3.0522	3.0588	3.0656	3.0708	3.0708	3.0755	3.0796	3.0834	3.0868
1.20	3.1594	3.1729	3.1863	3.1941	3.2026	3.2100	3.2165	3.2223	3.2223	3.2275	3.2321	3.2363	3.2402
1.25	3.3110	3.3261	3.3388	3.3497	3.3591	3.3673	3.3746	3.3810	3.3810	3.3886	3.3920	3.3967	3.4010
1.30	3.4696	3.4863	3.5005	3.5125	3.5230	3.5322	3.5403	3.5474	3.5474	3.5539	3.5596	3.5649	3.5696
1.35	3.6356	3.6541	3.6697	3.6831	3.6946	3.7049	3.7139	3.7218	3.7218	3.7290	3.7354	3.7412	3.7464
1.40	3.8092	3.8296	3.8469	3.8618	3.8746	3.8858	3.8958	3.9046	3.9046	3.9125	3.9196	3.9260	3.9319
1.45	3.9908	4.0133	4.0324	4.0488	4.0630	4.0754	4.0864	4.0961	4.0961	4.1049	4.1127	4.1199	4.1263
1.50	4.1807	4.2055	4.2266	4.2446	4.2603	4.2740	4.2861	4.2969	4.2969	4.3065	4.3152	4.3231	4.3302
1.55	4.3793	4.4066	4.4297	4.4496	4.4669	4.4820	4.4953	4.5072	4.5072	4.5178	4.5274	4.5361	4.5440
1.60	4.5870	4.6171	4.6424	4.6642	4.6832	4.6998	4.7145	4.7276	4.7276	4.7393	4.7498	4.7601	4.7681
1.65	4.8042	4.8371	4.8649	4.8889	4.9097	4.9280	4.9441	4.9585	4.9585	4.9714	4.9830	4.9935	5.0031
1.70	5.0313	5.0673	5.0978	5.1241	5.1469	5.1670	5.1847	5.2004	5.2004	5.2146	5.2273	5.2389	5.2494
1.75	5.2687	5.3081	5.3415	5.3703	5.3953	5.4172	5.4366	5.4539	5.4539	5.4694	5.4834	5.4961	5.5076
1.80	5.5170	5.5599	5.5965	5.6279	5.6553	5.6793	5.7005	5.7195	5.7195	5.7365	5.7518	5.7657	5.7783
1.85	5.7764	5.8233	5.8632	5.8976	5.9275	5.9537	5.9769	5.9977	5.9977	6.0163	6.0330	6.0482	6.0621
1.90	6.0477	6.0988	6.1423	6.1798	6.2124	6.2411	6.2664	6.2891	6.2891	6.3094	6.3277	6.3444	6.3590
1.95	6.3312	6.3869	6.4362	6.4751	6.5107	6.5419	6.5696	6.5943	6.5943	6.6165	6.6365	6.6547	6.6713
2.00	6.6276	6.6881	6.7396	6.7841	6.8229	6.8569	6.8871	6.9141	6.9141	6.9383	6.9601	6.9799	6.9980
2.05	6.9373	7.0030	7.0591	7.1075	7.1496	7.1867	7.2196	7.2490	7.2490	7.2753	7.2992	7.3208	7.3405
2.10	7.2609	7.3323	7.3932	7.4458	7.4916	7.5320	7.5678	7.5997	7.5997	7.6284	7.6544	7.6779	7.6994
2.15	7.5991	7.6765	7.7426	7.7997	7.8496	7.8934	7.9323	7.9671	7.9671	7.9983	8.0265	8.0521	8.0759
2.20	7.9525	8.0364	8.1081	8.1700	8.2241	8.2717	8.3140	8.3518	8.3518	8.3857	8.4164	8.4442	8.4697
2.25	8.3218	8.4126	8.4903	8.5574	8.6161	8.6678	8.7136	8.7546	8.7546	8.7915	8.8249	8.8552	8.8828
2.30	8.7076	8.8059	8.8899	8.9627	9.0242	9.0823	9.1321	9.1766	9.1766	9.2166	9.2527	9.2856	9.3156
2.35	9.1106	9.2169	9.3078	9.3865	9.4555	9.5162	9.5701	9.6183	9.6183	9.6617	9.7009	9.7366	9.7692
2.40	9.5316	9.6455	9.7448	9.8300	9.9045	9.9702	10.0286	10.0808	10.0808	10.1279	10.1704	10.2091	10.2444
2.45	9.9714	10.0954	10.2017	10.2937	10.3743	10.4454	10.5086	10.5651	10.5651	10.6161	10.6621	10.7040	10.7423
2.50	10.4308	10.5644	10.6793	10.7787	10.8658	10.9427	11.0110	11.0722	11.0722	11.1273	11.1772	11.2225	11.2640
2.55	10.9106	11.0549	11.1786	11.2860	11.3800	11.4630	11.5369	11.6030	11.6030	11.6626	11.7166	11.7657	11.8105
2.60	11.4117	11.5671	11.7006	11.8164	11.9178	12.0075	12.0873	12.1568	12.1568	12.2232	12.2815	12.3366	12.3831
2.65	11.9350	12.1024	12.2462	12.3710	12.4805	12.5772	12.6634	12.7406	12.7406	12.8101	12.8731	12.9305	12.9830
2.70	12.4815	12.6616	12.8164	12.9510	13.0690	13.1733	13.2662	13.3495	13.3495	13.4247	13.4927	13.5547	13.6113
2.75	13.0521	13.2458	13.4125	13.5574	13.6845	13.7970	13.8972	13.9870	13.9870	14.0681	14.1415	14.2084	14.2694
2.80	13.6479	13.8562	14.0354	14.1914	14.3283	14.4494	14.5574	14.6543	14.6543	14.7416	14.8209	14.8930	14.9591
2.85	14.2699	14.4937	14.6865	14.8542	15.0015	15.1320	15.2483	15.3527	15.3527	15.4468	15.5322	15.6101	15.6813
2.90	14.9194	15.1597	15.3668	15.5471	15.7056	15.8460	15.9712	16.0836	16.0836	16.1850	16.2771	16.3610	16.4377
2.95	15.5973	15.8553	16.0777	16.2715	16.4419	16.5929	16.7276	16.8486	16.8486	16.9578	17.0569	17.1473	17.2300
3.00	16.3050	16.5818	16.8205	17.0267	17.2118	17.3741	17.5190	17.6492	17.6492	17.7667	17.8734	17.9707	18.0598
3.05	17.0438	17.3405	17.5967	17.8202	18.0168	18.1912	18.3470	18.4870	18.4870	18.6134	18.7282	18.8324	18.9268
3.10	17.8140	18.1329	18.4076	18.6474	18.8545	19.0459	19.2132	19.3637	19.3637	19.4996	19.6231	19.7358	19.8389
3.15	18.6196	18.9603	19.2548	19.5120	19.7386	19.9397	20.1195	20.2811	20.2811	20.4272	20.5599	20.6810	20.7920
3.20	19.4595	19.8243	20.1399	20.4156	20.6577	20.8745	21.0674	21.2410	21.2410	21.3979	21.5406	21.6708	21.7901
3.25	20.3359	20.7264	21.0644	21.3599	21.6205	21.8520	22.0591	22.2454	22.2454	22.4139	22.5671	22.7070	22.8352
3.30	21.2505	21.6683	22.0302	22.3468	22.6260	22.8742	23.0963	23.2962	23.2962	23.4771	23.6416	23.7918	23.9295
3.35	22.2049	22.6517	23.0390	23.3779	23.6771	23.9431	24.1812	24.3957	24.3957	24.5897	24.7663	24.9275	25.0754
3.40	23.2007	23.6783	24.0926	24.4554	24.7758	25.0608	25.3160	25.5459	25.5459	25.7540	25.9434	26.1164	26.2751
3.45	24.2394	24.7500	25.1930	25.5812	25.9241	26.2293	26.5028	26.7491	26.7491	26.9723	27.1754	27.3610	27.5312
3.50	25.3235	25.8688	26.3423	26.7574	27.1244	27.4511	27.7439	28.0079	28.0079	28.2470	28.4647	28.6637	28.8464
3.55	26.4543	27.0365	27.5424	27.9863	28.3788	28.7285	29.0419	29.3246	29.3246	29.5808	29.8141	30.0274	30.2232
3.60	27.6338	28.2553	28.7957	29.2701	29.6898	30.0638	30.3993	30.7019	30.7019	30.9763	31.2262	31.4547	31.6646
3.65	28.8643	29.5274	30.1044	30.6112	31.0598	31.4598	31.8187	32.1426	32.1426	32.4363	32.7039	32.9447	33.1730
3.70	30.1476	30.8550	31.4709	32.0121	32.4915	32.9191	33.3029	33.6494	33.6494	33.9637	34.2501	34.5123	34.7531
3.75	31.4862	32.2404	32.8976	33.4754	33.9875	34.4444	34.8568	35.2253	35.2253	35.5616	35.8681	36.1487	36.4066
3.80													

Tabelle I

t	n	110	115	120	125	130	140	150	160	170	180	190	200
0.05		1.0508	1.0508	1.0508	1.0508	1.0508	1.0509	1.0509	1.0509	1.0509	1.0510	1.0510	1.0510
0.10		1.1041	1.1041	1.1042	1.1042	1.1042	1.1043	1.1044	1.1044	1.1045	1.1045	1.1045	1.1046
0.15		1.1600	1.1601	1.1602	1.1602	1.1603	1.1604	1.1605	1.1606	1.1607	1.1607	1.1608	1.1608
0.20		1.2188	1.2189	1.2190	1.2191	1.2192	1.2193	1.2195	1.2196	1.2197	1.2198	1.2199	1.2199
0.25		1.2804	1.2806	1.2807	1.2808	1.2810	1.2812	1.2814	1.2815	1.2817	1.2818	1.2819	1.2820
0.30		1.3451	1.3453	1.3455	1.3457	1.3458	1.3461	1.3464	1.3466	1.3468	1.3470	1.3471	1.3472
0.35		1.4130	1.4133	1.4135	1.4138	1.4140	1.4143	1.4146	1.4149	1.4151	1.4154	1.4156	1.4157
0.40		1.4843	1.4846	1.4849	1.4852	1.4855	1.4859	1.4863	1.4866	1.4869	1.4872	1.4875	1.4877
0.45		1.5591	1.5595	1.5599	1.5602	1.5605	1.5611	1.5616	1.5620	1.5623	1.5627	1.5630	1.5632
0.50		1.6376	1.6381	1.6386	1.6390	1.6393	1.6400	1.6406	1.6411	1.6415	1.6419	1.6423	1.6426
0.55		1.7200	1.7206	1.7211	1.7216	1.7220	1.7228	1.7235	1.7241	1.7246	1.7251	1.7255	1.7259
0.60		1.8065	1.8071	1.8077	1.8083	1.8088	1.8098	1.8106	1.8113	1.8120	1.8125	1.8130	1.8135
0.65		1.8973	1.8980	1.8988	1.8994	1.9000	1.9011	1.9021	1.9029	1.9036	1.9043	1.9049	1.9054
0.70		1.9925	1.9934	1.9942	1.9950	1.9957	1.9969	1.9980	1.9990	1.9999	2.0006	2.0013	2.0019
0.75		2.0924	2.0934	2.0944	2.0953	2.0961	2.0975	2.0988	2.0999	2.1009	2.1018	2.1026	2.1033
0.80		2.1972	2.1984	2.1995	2.2005	2.2014	2.2031	2.2046	2.2059	2.2070	2.2080	2.2089	2.2098
0.85		2.3071	2.3085	2.3098	2.3109	2.3120	2.3139	2.3156	2.3171	2.3184	2.3196	2.3206	2.3215
0.90		2.4225	2.4241	2.4255	2.4268	2.4281	2.4303	2.4322	2.4339	2.4353	2.4367	2.4379	2.4389
0.95		2.5435	2.5453	2.5469	2.5485	2.5498	2.5523	2.5545	2.5564	2.5581	2.5596	2.5610	2.5622
1.00		2.6705	2.6725	2.6744	2.6761	2.6776	2.6805	2.6829	2.6851	2.6870	2.6887	2.6902	2.6916
1.05		2.8037	2.8060	2.8080	2.8100	2.8117	2.8149	2.8177	2.8201	2.8223	2.8242	2.8259	2.8275
1.10		2.9434	2.9459	2.9483	2.9505	2.9525	2.9560	2.9592	2.9619	2.9643	2.9665	2.9684	2.9702
1.15		3.0899	3.0928	3.0954	3.0979	3.1001	3.1041	3.1076	3.1107	3.1134	3.1159	3.1180	3.1200
1.20		3.2436	3.2468	3.2498	3.2525	3.2550	3.2595	3.2634	3.2669	3.2699	3.2726	3.2751	3.2773
1.25		3.4049	3.4084	3.4117	3.4147	3.4175	3.4226	3.4270	3.4308	3.4342	3.4372	3.4400	3.4424
1.30		3.5739	3.5779	3.5816	3.5849	3.5881	3.5937	3.5986	3.6028	3.6066	3.6100	3.6131	3.6158
1.35		3.7513	3.7557	3.7597	3.7635	3.7670	3.7732	3.7786	3.7834	3.7876	3.7914	3.7948	3.7978
1.40		3.9372	3.9421	3.9466	3.9508	3.9547	3.9616	3.9676	3.9729	3.9776	3.9818	3.9855	3.9889
1.45		4.1322	4.1377	4.1427	4.1473	4.1515	4.1592	4.1659	4.1717	4.1769	4.1816	4.1858	4.1895
1.50		4.3368	4.3428	4.3483	4.3534	4.3581	4.3666	4.3739	4.3804	4.3862	4.3913	4.3959	4.4001
1.55		4.5512	4.5578	4.5639	4.5695	4.5748	4.5841	4.5923	4.5994	4.6058	4.6115	4.6166	4.6212
1.60		4.7761	4.7833	4.7901	4.7963	4.8020	4.8123	4.8213	4.8293	4.8363	4.8425	4.8482	4.8532
1.65		5.0118	5.0198	5.0272	5.0341	5.0404	5.0518	5.0617	5.0704	5.0781	5.0850	5.0912	5.0968
1.70		5.2590	5.2678	5.2760	5.2835	5.2904	5.3029	5.3138	5.3234	5.3319	5.3395	5.3464	5.3525
1.75		5.5182	5.5279	5.5368	5.5450	5.5527	5.5664	5.5784	5.5889	5.5983	5.6067	5.6142	5.6209
1.80		5.7899	5.8005	5.8103	5.8194	5.8277	5.8428	5.8560	5.8675	5.8778	5.8870	5.8952	5.9027
1.85		6.0748	6.0864	6.0971	6.1070	6.1162	6.1327	6.1471	6.1598	6.1711	6.1811	6.1902	6.1984
1.90		6.3734	6.3861	6.3978	6.4087	6.4187	6.4368	6.4526	6.4665	6.4788	6.4899	6.4994	6.5087
1.95		6.6864	6.7003	6.7132	6.7250	6.7360	6.7558	6.7730	6.7883	6.8018	6.8138	6.8247	6.8345
2.00		7.0145	7.0297	7.0438	7.0567	7.0687	7.0903	7.1092	7.1258	7.1406	7.1538	7.1656	7.1763
2.05		7.3585	7.3751	7.3904	7.4045	7.4176	7.4412	7.4618	7.4800	7.4961	7.5105	7.5234	7.5352
2.10		7.7190	7.7371	7.7538	7.7692	7.7835	7.8092	7.8317	7.8515	7.8691	7.8848	7.8989	7.9117
2.15		8.0969	8.1166	8.1347	8.1513	8.1671	8.1951	8.2197	8.2413	8.2605	8.2776	8.2930	8.3070
2.20		8.4930	8.5144	8.5342	8.5524	8.5694	8.5999	8.6266	8.6501	8.6710	8.6897	8.7065	8.7217
2.25		8.9081	8.9314	8.9529	8.9727	8.9912	9.0244	9.0534	9.0790	9.1018	9.1221	9.1404	9.1570
2.30		9.3431	9.3684	9.3917	9.4133	9.4324	9.4695	9.5011	9.5289	9.5537	9.5758	9.5957	9.6138
2.35		9.7990	9.8265	9.8518	9.8753	9.8970	9.9363	9.9706	10.0008	10.0277	10.0518	10.0735	10.0931
2.40		10.2768	10.3065	10.3340	10.3595	10.3831	10.4257	10.4630	10.4958	10.5251	10.5512	10.5748	10.5961
2.45		10.7774	10.8097	10.8395	10.8671	10.8927	10.9389	10.9793	11.0150	11.0467	11.0751	11.1007	11.1238
2.50		11.3020	11.3370	11.3693	11.3992	11.4270	11.4770	11.5209	11.5596	11.5940	11.6248	11.6526	11.6777
2.55		11.8517	11.8895	11.9245	11.9569	11.9870	12.0413	12.0888	12.1307	12.1680	12.2015	12.2315	12.2588
2.60		12.4276	12.4686	12.5065	12.5415	12.5741	12.6329	12.6843	12.7298	12.7702	12.8064	12.8390	12.8685
2.65		13.0311	13.0734	13.1113	13.1453	13.1766	13.2511	13.3088	13.3580	13.4018	13.4410	13.4763	13.5083
2.70		13.6633	13.7112	13.7555	13.7965	13.8346	13.9034	13.9636	14.0169	14.0662	14.1107	14.1449	14.1796
2.75		14.3257	14.3775	14.4253	14.4696	14.5108	14.5851	14.6503	14.7078	14.7591	14.8050	14.8464	14.8838
2.80		15.0197	15.0735	15.1272	15.1750	15.2196	15.2998	15.3702	15.4324	15.4878	15.5375	15.5822	15.6228
2.85		15.7467	15.8069	15.8627	15.9143	15.9624	16.0491	16.1251	16.1923	16.2522	16.3058	16.3540	16.3980
2.90		16.5082	16.5732	16.6333	16.6891	16.7409	16.8345	16.9165	16.9891	17.0538	17.1117	17.1640	17.2113
2.95		17.3060	17.3761	17.4409	17.5010	17.5569	17.6578	17.7464	17.8247	17.8945	17.9571	18.0135	18.0646
3.00		18.1417	18.2171	18.2870	18.3518	18.4121	18.5209	18.6164	18.7009	18.7761	18.8437	18.9046	18.9598
3.05		19.0170	19.0983	19.1735	19.2433	19.3083	19.4255	19.5284	19.6196	19.7008	19.7736	19.8393	19.8988
3.10		19.9338	20.0213	20.1023	20.1775	20.2474	20.3737	20.4846	20.5828	20.6704	20.7489	20.8197	20.8840
3.15		20.0894	20.1882	21.0794	21.1563	21.2316	21.3676	21.4871	21.5928	21.6872	21.7718	21.8461	21.9174
3.20		21.8998	22.0011	22.0948	22.1819	22.2629	22.4093	22.5379	22.6518	22.7534	22.8446	22.9268	23.0014
3.25		22.9531	23.0620	23.1628	23.2564	23.3436	23.5011	23.6395	23.7621	23.8714	23.9696	24.0582	24.1386
3.30		24.0562	24.1732	24.2816	24.3822	24.4759	24.6453	24.7942	24.9261	25.0438	25.1495	25.2449	25.3314
3.35		25.2113	25.3371	25.4536	25.5617	25.6624	25.8445	26.0006	26.1465	26.2731	26.3866	26.4894	26.5828
3.40		26.4212	26.5542	26.6812	26.7974	26.9036	27.1012	27.2733	27.4259	27.5620	27.6843	27.7947	27.8949
3.45		27.6881	27.8329	27.9671	28.0919	28.2081	28.4182	28.6031	28.7671	28.9135	29.0449	29.1637	29.2715
3.50		29.0148	29.1700	29.3141	29.4480	29.5727	29.7984	29.9970	30.1731	30.3304	30.4717	30.5994	30.7152
3.55		30.4036	30.5703	30.7249	30.8685	31.0024	31.2447	31.4579	31.6471	31.8160	31.9678	32.1050	32.2295
3.60		31.8580	32.0368	32.2025	32.3								

Tabelle I

t	n	200	300	400	500	600	700	800	900	1000	5000	10000	∞
0.05		1.0510	1.0511	1.0511	1.0512	1.0512	1.0512	1.0512	1.0512	1.0512	1.0513	1.0513	1.0513
0.10		1.1046	1.1048	1.1049	1.1049	1.1050	1.1050	1.1050	1.1050	1.1050	1.1051	1.1051	1.1051
0.15		1.1608	1.1612	1.1613	1.1614	1.1615	1.1615	1.1616	1.1616	1.1616	1.1618	1.1618	1.1618
0.20		1.2199	1.2204	1.2207	1.2208	1.2209	1.2210	1.2211	1.2211	1.2211	1.2213	1.2214	1.2214
0.25		1.2820	1.2827	1.2830	1.2832	1.2834	1.2835	1.2835	1.2836	1.2836	1.2839	1.2840	1.2840
0.30		1.3472	1.3481	1.3485	1.3488	1.3490	1.3491	1.3492	1.3493	1.3493	1.3498	1.3498	1.3499
0.35		1.4157	1.4168	1.4174	1.4177	1.4179	1.4181	1.4182	1.4183	1.4184	1.4189	1.4190	1.4191
0.40		1.4877	1.4890	1.4897	1.4902	1.4904	1.4906	1.4908	1.4909	1.4910	1.4917	1.4917	1.4918
0.45		1.5632	1.5649	1.5658	1.5663	1.5666	1.5668	1.5670	1.5672	1.5673	1.5681	1.5682	1.5683
0.50		1.6426	1.6446	1.6456	1.6462	1.6466	1.6469	1.6472	1.6473	1.6475	1.6485	1.6486	1.6486
0.55		1.7259	1.7283	1.7295	1.7303	1.7308	1.7311	1.7314	1.7316	1.7317	1.7329	1.7331	1.7333
0.60		1.8135	1.8163	1.8178	1.8186	1.8192	1.8196	1.8199	1.8202	1.8204	1.8218	1.8219	1.8221
0.65		1.9054	1.9087	1.9104	1.9118	1.9121	1.9126	1.9130	1.9133	1.9135	1.9151	1.9153	1.9155
0.70		2.0019	2.0058	2.0078	2.0098	2.0099	2.0103	2.0108	2.0111	2.0114	2.0133	2.0135	2.0138
0.75		2.1033	2.1078	2.1101	2.1115	2.1124	2.1130	2.1135	2.1139	2.1142	2.1164	2.1167	2.1170
0.80		2.2098	2.2150	2.2176	2.2192	2.2202	2.2210	2.2215	2.2220	2.2223	2.2249	2.2252	2.2255
0.85		2.3215	2.3275	2.3305	2.3323	2.3335	2.3344	2.3351	2.3356	2.3360	2.3387	2.3393	2.3396
0.90		2.4389	2.4457	2.4492	2.4512	2.4526	2.4536	2.4544	2.4549	2.4554	2.4588	2.4596	2.4596
0.95		2.5622	2.5699	2.5738	2.5762	2.5778	2.5789	2.5797	2.5804	2.5809	2.5848	2.5852	2.5857
1.00		2.6916	2.7004	2.7048	2.7075	2.7093	2.7106	2.7115	2.7123	2.7129	2.7172	2.7177	2.7183
1.05		2.8275	2.8374	2.8424	2.8454	2.8475	2.8489	2.8500	2.8508	2.8515	2.8564	2.8570	2.8577
1.10		2.9702	2.9814	2.9870	2.9904	2.9927	2.9943	2.9953	2.9965	2.9973	3.0028	3.0035	3.0042
1.15		3.1200	3.1325	3.1389	3.1427	3.1453	3.1471	3.1485	3.1496	3.1504	3.1566	3.1574	3.1582
1.20		3.2773	3.2913	3.2985	3.3027	3.3056	3.3077	3.3092	3.3104	3.3114	3.3184	3.3192	3.3201
1.25		3.4424	3.4581	3.4661	3.4709	3.4741	3.4764	3.4781	3.4793	3.4806	3.4884	3.4894	3.4903
1.30		3.6158	3.6333	3.6422	3.6476	3.6512	3.6537	3.6557	3.6572	3.6584	3.6671	3.6682	3.6693
1.35		3.7978	3.8173	3.8272	3.8332	3.8372	3.8401	3.8422	3.8439	3.8453	3.8550	3.8562	3.8574
1.40		3.9889	4.0106	4.0216	4.0282	4.0327	4.0359	4.0383	4.0402	4.0416	4.0525	4.0538	4.0552
1.45		4.1895	4.2136	4.2258	4.2332	4.2381	4.2417	4.2443	4.2464	4.2481	4.2601	4.2616	4.2631
1.50		4.4001	4.4268	4.4403	4.4485	4.4540	4.4579	4.4608	4.4631	4.4650	4.4783	4.4800	4.4817
1.55		4.6212	4.6507	4.6656	4.6747	4.6808	4.6851	4.6884	4.6909	4.6930	4.7077	4.7096	4.7115
1.60		4.8532	4.8858	4.9023	4.9123	4.9191	4.9239	4.9275	4.9303	4.9326	4.9489	4.9510	4.9530
1.65		5.0968	5.1328	5.1510	5.1620	5.1695	5.1748	5.1788	5.1819	5.1844	5.2024	5.2047	5.2070
1.70		5.3525	5.3921	5.4122	5.4244	5.4325	5.4384	5.4428	5.4462	5.4490	5.4689	5.4714	5.4739
1.75		5.6209	5.6645	5.6866	5.7000	5.7090	5.7154	5.7203	5.7241	5.7271	5.7491	5.7518	5.7546
1.80		5.9027	5.9505	5.9748	5.9994	6.0065	6.0119	6.0160	6.0194	6.0225	6.0435	6.0460	6.0496
1.85		6.1984	6.2508	6.2776	6.3046	6.3124	6.3183	6.3229	6.3265	6.3295	6.3531	6.3564	6.3598
1.90		6.5087	6.5663	6.5956	6.6193	6.6253	6.6338	6.6403	6.6453	6.6493	6.6785	6.6822	6.6859
1.95		6.8345	6.8975	6.9296	6.9491	6.9622	6.9716	6.9786	6.9841	6.9885	7.0206	7.0246	7.0287
2.00		7.1763	7.2453	7.2805	7.3018	7.3162	7.3264	7.3342	7.3402	7.3450	7.3802	7.3846	7.3891
2.05		7.5352	7.6105	7.6490	7.6724	7.6881	7.6994	7.7078	7.7145	7.7198	7.7582	7.7630	7.7679
2.10		7.9117	7.9941	8.0362	8.0617	8.0789	8.0912	8.1005	8.1077	8.1135	8.1556	8.1609	8.1662
2.15		8.3070	8.3969	8.4428	8.4707	8.4894	8.5029	8.5130	8.5209	8.5273	8.5733	8.5793	8.5849
2.20		8.7217	8.8198	8.8699	8.9003	8.9208	8.9355	8.9465	8.9552	8.9621	9.0123	9.0187	9.0250
2.25		9.1570	9.2638	9.3184	9.3517	9.3740	9.3900	9.4021	9.4115	9.4190	9.4739	9.4808	9.4877
2.30		9.6138	9.7300	9.7896	9.8258	9.8501	9.8676	9.8807	9.8910	9.8992	9.9591	9.9666	9.9742
2.35		10.0931	10.2198	10.2844	10.3238	10.3503	10.3694	10.3837	10.3949	10.4039	10.4691	10.4773	10.4856
2.40		10.5961	10.7336	10.8041	10.8470	10.8759	10.8966	10.9122	10.9244	10.9342	11.0052	11.0142	11.0232
2.45		11.1238	11.2733	11.3500	11.3966	11.4280	11.4506	11.4676	11.4808	11.4915	11.5688	11.5786	11.5883
2.50		11.6777	11.8400	11.9233	11.9740	12.0081	12.0326	12.0511	12.0655	12.0771	12.1612	12.1718	12.1825
2.55		12.2588	12.4349	12.5254	12.5804	12.6175	12.6442	12.6642	12.6799	12.6925	12.7840	12.7955	12.8071
2.60		12.8685	13.0595	13.1577	13.2175	13.2578	13.2867	13.3085	13.3255	13.3392	13.4386	13.4512	13.4637
2.65		13.5083	13.7153	13.8218	13.8867	13.9304	13.9618	13.9855	14.0039	14.0188	14.1267	14.1404	14.1540
2.70		14.1796	14.4038	14.5193	14.5896	14.6370	14.6711	14.6968	14.7168	14.7329	14.8501	14.8649	14.8797
2.75		14.8838	15.1267	15.2517	15.3280	15.3793	15.4163	15.4441	15.4659	15.4833	15.6105	15.6265	15.6426
2.80		15.6228	15.8855	16.0209	16.1036	16.1552	16.1922	16.2294	16.2530	16.2719	16.4097	16.4272	16.4446
2.85		16.3980	16.6822	16.8288	16.9182	16.9785	17.0218	17.0545	17.0801	17.1036	17.2499	17.2680	17.2878
2.90		17.2113	17.5186	17.6771	17.7739	17.8391	17.8861	17.9215	17.9492	17.9714	18.1331	18.1536	18.1741
2.95		18.0646	18.3966	18.5680	18.6727	18.7433	18.7941	18.8324	18.8623	18.8864	19.0615	19.0837	19.1060
3.00		18.9598	19.3183	19.5036	19.6168	19.6931	19.7481	19.7895	19.8219	19.8479	20.0375	20.0615	20.0855
3.05		19.8988	20.2859	20.4861	20.6084	20.6909	20.7503	20.7951	20.8301	20.8582	21.0633	21.0893	21.1153
3.10		20.8840	21.3016	21.5178	21.6499	21.7391	21.8033	21.8517	21.8895	21.9199	22.1417	22.1698	22.1980
3.15		21.9174	22.3679	22.6012	22.7439	22.8401	22.9095	22.9618	23.0027	23.0356	23.2752	23.3056	23.3361
3.20		23.0014	23.4871	23.7388	23.8928	23.9968	24.0717	24.1282	24.1724	24.2078	24.4668	24.4996	24.5325
3.25		24.1386	24.6620	24.9335	25.0996	25.2118	25.2927	25.3537	25.4013	25.4396	25.7193	25.7548	25.7903
3.30		25.3314	25.8953	26.1880	26.3672	26.4882	26.5754	26.6412	26.6927	26.7340	27.0359	27.0742	27.1126
3.35		26.5826	27.1898	27.5052	27.6984	27.8289	27.9230	27.9940	28.0495	28.0941	28.4199	28.4613	28.5027
3.40		27.8949	28.5486	28.8854	29.0966	29.2373	29.3387	29.4153	29.4751	29.5232	29.8747	29.9193	29.9641
3.45		29.2715	29.9749	30.3408	30.5651	30.7167	30.8260	30.9085	30.9730	31.0249	31.4040	31.4521	31.5004
3.50		30.7152	31.4719	31.8658	32.1074	32.2707	32.3884	32.4774	32.5469	32.6028	33.0115	33.0634	33.1155
3.55		32.2295	33.0433	33.4671	33.7272	33.9030	34.0268	34.1257	34.2036	34.2608	34.7012	34.7571	34.8133
3.60		33.8177	34.6925	35.1485	35.4284	35.6176	35.7542	35.8574	35.9381	36.0029	36.4774	36.5377	36.5982
3.65		35.4835	36.4233	36.9139	37.2150	37.4287	37.5657	37.6767	37.7636	37.8334	38.3445	38.4094	38.4743
3.70		37.2304	38.2403	38.7675	39.0914	39.3105	39.4687	39.5882	39.6817	39.7568	40.3072	40.3771	40.4473
3.75		39.0626	40.1471	40.7137	41.0619	41.2976	41.4678	41.5964	41.6970	41.7779	42.3702	42.4455	42.5211
3.80		40.9840	42.1484	42.7572	43.1315	43.3850	43.5679	43.7062	43.8144	43.9014	44.5387	44.6198	44.7012
3.85		42.9990	44.2487	44.9027	45.3049	45.5773	45.7740	45.9227	46.0391	46.1326	46.8183	46.9055	46.9931
3.90		45.1121	46.4551	47.1553	47.5874	47.8801	48.0915	48.2514	48.3765	48.4770	49.2144	49.3082	49.4024
3.95		47.3280	48.7666	49.5204	49.9844	50.2989	50.5260	50.6978	50.8322	50.9403	51.7331	51.8343	51.9354

Tabelle II

t	n	2	3	4	5	6	7	8	9	10	11	12
0.05		0.0504	0.0510	0.0515	0.0518	0.0521	0.0523	0.0525	0.0526	0.0527	0.0528	0.0529
0.10		0.1017	0.1042	0.1061	0.1076	0.1086	0.1095	0.1102	0.1107	0.1112	0.1115	0.1119
0.15		0.1537	0.1596	0.1640	0.1673	0.1697	0.1717	0.1733	0.1746	0.1757	0.1766	0.1774
0.20		0.2068	0.2172	0.2252	0.2311	0.2357	0.2394	0.2423	0.2448	0.2468	0.2485	0.2500
0.25		0.2606	0.2771	0.2897	0.2993	0.3068	0.3127	0.3173	0.3215	0.3249	0.3278	0.3303
0.30		0.3153	0.3393	0.3579	0.3721	0.3832	0.3921	0.3993	0.4054	0.4106	0.4149	0.4187
0.35		0.3709	0.4039	0.4297	0.4496	0.4652	0.4779	0.4882	0.4968	0.5041	0.5104	0.5159
0.40		0.4274	0.4710	0.5054	0.5321	0.5532	0.5703	0.5864	0.5992	0.6063	0.6130	0.6225
0.45		0.4848	0.5405	0.5849	0.6197	0.6473	0.6690	0.6884	0.7041	0.7175	0.7291	0.7393
0.50		0.5431	0.6126	0.6685	0.7127	0.7479	0.7768	0.8008	0.8211	0.8386	0.8537	0.8669
0.55		0.6023	0.6873	0.7564	0.8112	0.8553	0.8916	0.9220	0.9478	0.9699	0.9892	1.0061
0.60		0.6625	0.7647	0.8485	0.9155	0.9698	1.0147	1.0524	1.0846	1.1123	1.1365	1.1577
0.65		0.7235	0.8448	0.9452	1.0259	1.0918	1.1465	1.1942	1.2322	1.2663	1.2962	1.3226
0.70		0.7856	0.9277	1.0463	1.1425	1.2215	1.2875	1.3434	1.3913	1.4329	1.4695	1.5018
0.75		0.8486	1.0135	1.1523	1.2657	1.3594	1.4380	1.5049	1.5625	1.6128	1.6564	1.6960
0.80		0.9125	1.1022	1.2631	1.3957	1.5058	1.5987	1.6780	1.7467	1.8067	1.8595	1.9062
0.85		0.9774	1.1938	1.3790	1.5327	1.6611	1.7699	1.8634	1.9444	2.0155	2.0783	2.1343
0.90		1.0434	1.2885	1.5001	1.6770	1.8258	1.9525	2.0615	2.1566	2.2402	2.3143	2.3805
0.95		1.1103	1.3863	1.6267	1.8289	2.0000	2.1465	2.2732	2.3840	2.4817	2.5686	2.6464
1.00		1.1782	1.4873	1.7587	1.9888	2.1845	2.3529	2.4992	2.6275	2.7410	2.8423	2.9331
1.05		1.2471	1.5914	1.8964	2.1568	2.3796	2.5721	2.7401	2.8880	3.0193	3.1366	3.2422
1.10		1.3170	1.6989	2.0401	2.3333	2.5857	2.8048	2.9968	3.1663	3.3175	3.4529	3.5749
1.15		1.3880	1.8098	2.1897	2.5185	2.8033	3.0517	3.2702	3.4640	3.6369	3.7924	3.9329
1.20		1.4600	1.9241	2.3457	2.7130	3.0329	3.3134	3.5610	3.7813	3.9787	4.1565	4.3177
1.25		1.5331	2.0419	2.5080	2.9169	3.2751	3.5905	3.8702	4.1199	4.3442	4.5469	4.7310
1.30		1.6072	2.1633	2.6769	3.1307	3.5303	3.8839	4.1977	4.4806	4.7347	4.9649	5.1746
1.35		1.6824	2.2884	2.8527	3.3546	3.7991	4.1943	4.5474	4.8648	5.1517	5.4124	5.6503
1.40		1.7587	2.4172	3.0354	3.5891	4.0821	4.5224	4.9174	5.2793	5.5968	5.8910	6.1601
1.45		1.8361	2.5498	3.2253	3.8344	4.3799	4.8691	5.3098	5.7086	6.0713	6.4025	6.7061
1.50		1.9146	2.6863	3.4228	4.0911	4.6929	5.2352	5.7256	6.1710	6.5770	6.9488	7.2905
1.55		1.9942	2.8267	3.6277	4.3595	5.0220	5.6216	6.1660	6.6621	7.1157	7.5321	7.9156
1.60		2.0749	2.9712	3.8405	4.6400	5.3677	6.0293	6.6323	7.1833	7.6890	8.1542	8.5839
1.65		2.1567	3.1198	4.0614	4.9330	5.7306	6.4551	7.1255	7.7367	8.2989	8.8177	9.2978
1.70		2.2397	3.2727	4.2906	5.2391	6.1115	6.9120	7.6471	8.3235	8.9475	9.5247	10.0601
1.75		2.3238	3.4298	4.5283	5.5585	6.5112	7.3992	8.1994	8.9455	9.6367	10.2778	10.8737
1.80		2.4091	3.5913	4.7747	5.8918	6.9302	7.8915	8.7809	9.6045	10.3688	11.0794	11.7415
1.85		2.4956	3.7572	5.0302	6.2394	7.3695	8.4202	9.3959	10.3024	11.1460	11.9324	12.6667
1.90		2.5833	3.9277	5.2949	6.6019	7.8297	8.9763	10.0450	11.0411	11.9708	12.8395	13.6526
1.95		2.6721	4.1028	5.5691	6.9798	8.3117	9.5610	10.7297	11.8227	12.8455	13.8037	14.7027
2.00		2.7622	4.2827	5.8531	7.3734	8.8165	10.1756	11.4519	12.6493	13.7729	14.8282	15.8206
2.05		2.8535	4.4674	6.1471	7.7834	9.3446	10.8214	12.2131	13.5230	14.7557	15.9163	17.0101
2.10		2.9460	4.6570	6.4514	8.2104	9.8972	11.4996	13.0152	14.4463	15.7967	17.0714	18.2753
2.15		3.0397	4.8516	6.7663	8.6549	10.4751	12.2116	13.8601	15.4215	16.8990	18.2971	19.6205
2.20		3.1347	5.0512	7.0920	9.1174	11.0793	12.9588	14.7496	16.4511	18.0657	19.5972	21.0501
2.25		3.2310	5.2561	7.4289	9.5985	11.7107	13.7427	15.6858	17.5377	19.3000	20.9776	22.5688
2.30		3.3285	5.4663	7.7772	10.0989	12.3704	14.5649	16.6706	18.6842	20.6053	22.4366	24.1816
2.35		3.4273	5.6818	8.1373	10.6191	13.0595	15.4269	17.7067	19.8933	21.9853	23.9844	25.8935
2.40		3.5275	5.9028	8.5094	11.1599	13.7789	16.3302	18.7959	21.1680	23.4437	25.6237	27.7101
2.45		3.6289	6.1295	8.8934	11.7218	14.5299	17.2767	19.9407	22.5114	24.9844	27.3591	29.6370
2.50		3.7316	6.3618	9.2910	12.3055	15.3136	18.2680	21.1434	23.9268	26.6116	29.1958	31.6801
2.55		3.8357	6.5999	9.7012	12.9118	16.1310	19.3059	22.4466	25.4174	28.3293	31.1390	33.8454
2.60		3.9411	6.8440	10.1247	13.5413	16.9837	20.3924	23.7335	26.9868	30.1422	33.1941	36.1406
2.65		4.0479	7.0940	10.5619	14.1947	17.8727	21.5293	25.1258	28.6387	32.0548	35.3666	38.5714
2.70		4.1561	7.3502	11.0132	14.8729	18.7993	22.7188	26.5870	30.3768	34.0721	37.6632	41.1454
2.75		4.2656	7.6126	11.4788	15.5765	19.7650	23.9627	28.1199	32.2051	36.1990	40.0496	43.8702
2.80		4.3766	7.8814	11.9592	16.3064	20.7710	25.2634	29.7276	34.1277	38.4409	42.6524	46.7537
2.85		4.4889	8.1566	12.4548	17.0634	21.8188	26.6230	31.4333	36.1489	40.8032	45.3587	49.8044
2.90		4.6026	8.4384	12.9658	17.8482	22.9100	28.0438	33.1802	38.2732	43.2918	48.2155	53.0308
2.95		4.7178	8.7269	13.4928	18.6618	24.0459	29.5282	35.0318	40.5051	45.9127	51.2304	56.4422
3.00		4.8344	9.0223	14.0361	19.5051	25.2282	31.0786	36.9717	42.8495	48.6720	54.4112	60.0480
3.05		4.9524	9.3246	14.5981	20.3789	26.4585	32.6977	39.0034	45.3115	51.5764	57.7662	63.8583
3.10		5.0720	9.6340	15.1732	21.2881	27.7384	34.3879	41.1309	47.8962	54.6326	61.3039	67.8837
3.15		5.1930	9.9506	15.7678	22.2216	29.0696	36.1521	43.3582	50.6091	57.8478	65.0332	72.1351
3.20		5.3155	10.2744	16.3804	23.1825	30.4539	37.9930	45.6892	53.4557	61.2294	68.9636	76.6239
3.25		5.4395	10.6058	17.0114	24.1798	31.8932	39.9136	48.1283	56.4621	64.7850	73.1047	81.3623
3.30		5.5650	10.9447	17.6613	25.2384	33.3893	41.9168	50.6798	59.5743	68.5227	77.4669	86.3628
3.35		5.6920	11.2913	18.3304	26.3615	34.9440	44.0058	53.3484	62.8585	72.4509	82.0608	91.6387
3.40		5.8206	11.6458	19.0194	27.4500	36.5594	46.1837	56.1388	66.3013	76.5783	86.9974	97.2037
3.45		5.9508	12.0082	19.7288	28.5830	38.2375	48.4539	59.0560	69.9101	80.9141	91.9885	103.0721
3.50		6.0825	12.3788	20.4585	29.7758	39.9804	50.8198	62.1049	73.6914	85.4675	97.3462	109.2593
3.55		6.2158	12.7576	21.2097	31.0094	41.7903	53.2849	65.2910	77.6527	90.2486	102.9632	115.7807
3.60		6.3507	13.1449	21.9825	32.2850	43.6694	55.8529	68.6196	81.8018	95.2676	108.9125	122.6532
3.65		6.4872	13.5406	22.7777	33.6099	45.6199	58.5273	72.0964	86.1466	100.5352	115.1481	129.8937
3.70		6.6253	13.9451	23.5956	34.9673	47.6443	61.3126	75.7273	90.6954	106.0624	121.7043	137.5205
3.75		6.7651	14.3584	24.4368	36.3764	49.7490	64.2122	79.5185	95.4569	111.8610	128.5960	145.5523
3.80		6.9065	14.7807	25.3019	37.8326	51.9244	67.2306	83.4761	100.4399	117.9429	135.8391	154.0088
3.85		7.0496	15.2122	26.1914	39.3372	54.1850	70.3719	87.6066	105.6537	124.3207	143.4497	162.9106
3.90		7.1943	15.6530	27.1059	40.8915	56.5297	73.6406	91.9149	111.1079	131.0074	151.4450	172.2792
3.95		7.3408	16.1032	28.0460	42.4970	58.9609	77.0412	96.4139	116.8126	138.0167	159.8425	182.1371
4.00		7.4889	16.5630	29.0121	44.1551	61.4817	80.5785	101.1048	122.7780	145.3623	168.6609	192.5077

Tabelle II

t	n	13	14	15	16	17	18	19	20	21	22	23
0.05	0.0530	0.0530	0.0531	0.0531	0.0532	0.0532	0.0532	0.0532	0.0533	0.0533	0.0533	0.0534
0.10	0.1121	0.1124	0.1126	0.1128	0.1130	0.1132	0.1133	0.1133	0.1134	0.1135	0.1137	0.1138
0.15	0.1781	0.1787	0.1793	0.1797	0.1802	0.1806	0.1809	0.1812	0.1815	0.1818	0.1818	0.1820
0.20	0.2514	0.2525	0.2535	0.2544	0.2553	0.2560	0.2567	0.2572	0.2578	0.2583	0.2588	0.2590
0.25	0.3324	0.3344	0.3361	0.3376	0.3389	0.3402	0.3413	0.3423	0.3433	0.3443	0.3451	0.3459
0.30	0.4220	0.4249	0.4276	0.4299	0.4320	0.4339	0.4356	0.4372	0.4386	0.4400	0.4412	0.4418
0.35	0.5207	0.5249	0.5287	0.5321	0.5351	0.5379	0.5404	0.5427	0.5449	0.5468	0.5486	0.5486
0.40	0.6292	0.6350	0.6403	0.6450	0.6493	0.6532	0.6567	0.6600	0.6629	0.6657	0.6682	0.6682
0.45	0.7482	0.7561	0.7632	0.7696	0.7754	0.7806	0.7854	0.7898	0.7938	0.7975	0.8010	0.8010
0.50	0.8786	0.8890	0.8983	0.9066	0.9142	0.9211	0.9274	0.9332	0.9385	0.9435	0.9480	0.9480
0.55	1.0211	1.0344	1.0463	1.0571	1.0669	1.0759	1.0840	1.0915	1.0985	1.1049	1.1109	1.1109
0.60	1.1765	1.1934	1.2085	1.2222	1.2347	1.2461	1.2565	1.2660	1.2749	1.2831	1.2907	1.2907
0.65	1.3460	1.3671	1.3859	1.4031	1.4186	1.4329	1.4459	1.4579	1.4690	1.4793	1.4889	1.4889
0.70	1.5305	1.5563	1.5796	1.6007	1.6200	1.6376	1.6538	1.6687	1.6825	1.6953	1.7072	1.7072
0.75	1.7310	1.7624	1.7908	1.8166	1.8401	1.8617	1.8815	1.8999	1.9168	1.9326	1.9473	1.9473
0.80	1.9486	1.9865	2.0208	2.0520	2.0803	2.1067	2.1309	2.1531	2.1738	2.1930	2.2109	2.2109
0.85	2.1845	2.2298	2.2709	2.3084	2.3427	2.3742	2.4033	2.4301	2.4551	2.4783	2.5000	2.5000
0.90	2.4600	2.4939	2.5247	2.5527	2.5783	2.6019	2.6239	2.6439	2.6625	2.6798	2.6958	2.6958
0.95	2.7164	2.7399	2.7597	2.7759	2.7895	2.8009	2.8109	2.8198	2.8275	2.8341	2.8398	2.8398
1.00	3.0152	3.0896	3.1575	3.2197	3.2769	3.3297	3.3785	3.4239	3.4661	3.5056	3.5425	3.5425
1.05	3.3377	3.4246	3.5039	3.5767	3.6438	3.7057	3.7632	3.8166	3.8664	3.9129	3.9564	3.9564
1.10	3.6856	3.7863	3.8788	3.9637	4.0419	4.1143	4.1815	4.2440	4.3024	4.3569	4.4081	4.4081
1.15	4.0606	4.1772	4.2842	4.3826	4.4735	4.5577	4.6359	4.7088	4.7769	4.8407	4.9005	4.9005
1.20	4.4645	4.5988	4.7221	4.8337	4.9409	5.0384	5.1292	5.2138	5.2930	5.3672	5.4369	5.4369
1.25	4.8990	5.0530	5.1947	5.3255	5.4467	5.5593	5.6641	5.7621	5.8538	5.9399	6.0209	6.0209
1.30	5.3663	5.5423	5.7045	5.8545	5.9937	6.1232	6.2440	6.3570	6.4629	6.5623	6.6559	6.6559
1.35	5.8683	6.0688	6.2540	6.4235	6.5846	6.7339	6.8720	7.0018	7.1236	7.2381	7.3460	7.3460
1.40	6.4073	6.6350	6.8458	7.0413	7.2232	7.3929	7.5516	7.7003	7.8400	7.9715	8.0955	8.0955
1.45	6.9855	7.2436	7.4828	7.7050	7.9120	8.1054	8.2865	8.4565	8.6163	8.7669	8.9090	8.9090
1.50	7.6056	7.8972	8.1679	8.4198	8.6548	8.8747	9.0808	9.2745	9.4568	9.6287	9.7912	9.7912
1.55	8.2701	8.5988	8.9043	9.1891	9.4553	9.7047	9.9387	10.1589	10.3664	10.5623	10.7475	10.7475
1.60	8.9817	9.3513	9.6954	10.0160	10.3175	10.5996	10.8648	11.1145	11.3500	11.5726	11.7833	11.7833
1.65	9.7434	10.1580	10.5448	10.9065	11.2456	11.5641	11.8638	12.1463	12.4131	12.6656	12.9048	12.9048
1.70	10.5581	11.0223	11.4582	11.8662	12.2441	12.6020	12.9408	13.2599	13.5615	13.8472	14.1181	14.1181
1.75	11.4291	11.9479	12.4336	12.8893	13.3175	13.7208	14.1014	14.4610	14.8014	15.1240	15.4303	15.4303
1.80	12.3599	12.9386	13.4813	13.9911	14.4711	14.9237	15.3513	15.7559	16.1392	16.5029	16.8486	16.8486
1.85	13.3540	13.9983	14.6034	15.1732	15.7101	16.2172	16.6968	17.1511	17.5820	17.9914	18.3807	18.3807
1.90	14.4151	15.1314	15.8059	16.4405	17.0403	17.6074	18.1444	18.6537	19.1373	19.5972	20.0351	20.0351
1.95	15.5474	16.3422	17.0915	17.7988	18.4675	19.1007	19.7011	20.2712	20.8131	21.3289	21.8204	21.8204
2.00	16.7548	17.6356	18.4873	19.2517	19.9982	20.7042	21.3744	22.0114	22.6177	23.1954	23.7464	23.7464
2.05	18.0419	19.0166	19.9385	20.8114	21.6392	22.4251	23.1721	23.8829	24.5602	25.2062	25.8230	25.8230
2.10	19.4134	20.4904	21.5108	22.4786	23.3996	24.2712	25.1026	25.8948	26.6503	27.3717	28.0612	28.0612
2.15	20.8741	22.0626	23.1906	24.2620	25.2808	26.2507	27.1749	28.0564	28.8981	29.7027	30.4723	30.4723
2.20	22.4292	23.7391	24.9843	26.1689	27.2971	28.3724	29.3983	30.3781	31.3147	32.2108	33.0688	33.0688
2.25	24.0841	25.5260	26.8990	28.2072	29.4548	30.6456	31.7831	32.8708	33.9114	34.9083	35.8637	35.8637
2.30	25.8446	27.4299	28.9419	30.3849	31.7630	33.0801	34.3399	35.5458	36.7010	37.8085	38.8710	38.8710
2.35	27.7166	29.4576	31.1209	32.7108	34.2312	35.6864	37.0800	38.4154	39.6962	40.9253	42.1056	42.1056
2.40	29.7064	31.6163	33.4441	35.1937	36.8696	38.4755	40.0193	41.4927	42.9110	44.2736	45.5834	45.5834
2.45	31.8207	33.9137	35.9200	37.8637	39.6587	41.4591	43.1588	44.7914	46.3600	47.8693	49.3213	49.3213
2.50	34.0664	36.3579	38.5579	40.6707	42.6999	44.6497	46.5238	48.3261	50.0601	51.7295	53.3373	53.3373
2.55	36.4510	38.9571	41.3674	43.6855	45.9151	48.0603	50.1248	52.1124	54.0270	55.8719	57.6505	57.6505
2.60	38.9821	41.7204	44.3585	46.8995	49.3470	51.7049	53.9769	56.1670	58.2787	60.3156	62.2813	62.2813
2.65	41.6678	44.6573	47.5418	50.3247	53.0089	55.5982	58.0964	60.5071	62.8341	65.0811	67.2516	67.2516
2.70	44.5166	47.7773	50.9289	53.9737	56.9149	59.7359	62.5002	65.1515	67.7135	70.1900	72.5845	72.5845
2.75	47.5376	51.0910	54.5312	57.8599	60.1799	62.9143	67.2064	70.1198	72.9382	75.6652	78.3045	78.3045
2.80	50.7401	54.6093	58.3614	61.9975	65.5199	68.9311	72.2343	75.4330	78.5308	81.5312	84.4379	84.4379
2.85	54.1338	58.3437	62.4637	66.4014	70.2512	73.9845	77.6042	81.1133	84.5154	87.8140	91.0125	91.0125
2.90	57.7293	62.3061	66.7588	71.0871	75.2917	79.3743	83.3375	87.1842	90.9175	94.5409	98.0579	98.0579
2.95	61.5373	66.3093	71.3545	76.0714	80.6598	85.1211	89.4571	93.6706	97.7643	101.7415	105.6056	105.6056
3.00	65.5693	70.9667	76.2351	81.3715	86.3732	91.2466	95.9871	100.5988	105.0843	109.4467	113.6890	113.6890
3.05	69.8372	75.6923	81.4166	87.0060	92.4587	97.7741	102.9530	107.9970	112.9083	117.6895	122.3438	122.3438
3.10	74.3536	80.7007	86.9161	92.9943	98.9320	104.7279	110.3818	115.8947	121.2683	126.5051	131.6077	131.6077
3.15	79.1317	86.0076	92.7517	99.3568	105.8183	112.1338	118.3020	124.3233	130.1989	135.9306	141.5210	141.5210
3.20	84.1852	91.6290	98.9420	106.1151	113.1421	120.0190	126.7439	133.3161	139.7363	146.0056	152.1261	152.1261
3.25	89.5287	97.5822	105.5071	113.2919	120.9288	128.4124	135.7394	142.9054	149.9189	156.7714	163.4686	163.4686
3.30	95.1773	103.8850	112.4676	120.9112	129.2057	137.3443	145.3224	153.1373	160.7878	168.2734	175.5963	175.5963
3.35	101.1468	110.5564	119.8458	128.9980	138.0013	146.8469	155.5286	164.0424	172.3861	180.5588	188.5605	188.5605
3.40	107.4541	117.6161	127.6642	137.5790	147.3459	156.9540	166.3957	175.6654	184.7596	193.8765	202.4154	202.4154
3.45	114.1167	125.0848	135.9475	146.6820	157.2711	167.7016	177.9637	188.0504	197.9570	207.6802	217.2184	217.2184
3.50	121.1527	132.9844	144.7211	156.3365	167.8105	179.1272	190.2748	201.2444	212.0295	222.6229	233.0307	233.0307
3.55	128.5815	141.3378	154.0118	166.5735	178.9994	191.2708	203.3735	215.2966	227.0317	238.5732	249.9170	249.9170
3.60	136.4230	150.1688	163.8477	177.4256	190.8750	204.1745	217.3071	230.2593	243.0212	255.5833	267.9459	267.9459
3.65	144.6984	159.5028	174.2583	188.9269	203.4766	217.8827	232.1251	246.1880	260.0591	273.7290	287.1905	287.1905
3.70	153.4298	169.3660	189.2732	201.1135	216.8455	232.4421	247.8801	263.1409	278.2098	293.0751	307.7279	307.7279
3.75	162.6402	179.7863	196.9305	214.0236	231.0251	247.9021	264.6277	281.1801	297.5418	312.6988	329.6401	329.6401
3.80	172.3537	190.7926	209.2587	227.6969	246.0614	264.3149	282.4263	300.3707	318.1272	335.6794	353.0139	353.0139
3.85	182.5956	202.4154	222.2998	242.1753	262.0026	281.7352	301.3379	320.7817	340.0427	359.1012	377.9415	377.9415
3.90	193.3925	214.6866	236.0797	257.5030	278.8994	300.2209	321.4277	342.4842	363.3690	384.0533	404.5205	404.5205
3.95	204.7720	227.6398	250.6498	273.7265	296.8055	319.3332	342.7644	365.				

Tabelle II

t	n	24	25	26	27	28	29	30	31	32	33	34
0.05		0.0534	0.0534	0.0534	0.0534	0.0534	0.0535	0.0535	0.0535	0.0535	0.0535	0.0535
0.10		0.1139	0.1139	0.1140	0.1141	0.1142	0.1142	0.1143	0.1143	0.1144	0.1144	0.1145
0.15		0.1823	0.1823	0.1827	0.1829	0.1830	0.1832	0.1833	0.1833	0.1836	0.1837	0.1839
0.20		0.2592	0.2596	0.2600	0.2604	0.2607	0.2610	0.2613	0.2616	0.2618	0.2621	0.2623
0.25		0.3456	0.3463	0.3470	0.3476	0.3481	0.3486	0.3491	0.3496	0.3500	0.3504	0.3508
0.30		0.4423	0.4434	0.4444	0.4453	0.4462	0.4470	0.4477	0.4484	0.4491	0.4498	0.4504
0.35		0.5503	0.5518	0.5533	0.5548	0.5559	0.5571	0.5582	0.5593	0.5603	0.5612	0.5621
0.40		0.6705	0.6727	0.6748	0.6767	0.6785	0.6801	0.6817	0.6832	0.6846	0.6859	0.6872
0.45		0.8042	0.8071	0.8099	0.8125	0.8149	0.8172	0.8194	0.8214	0.8233	0.8252	0.8269
0.50		0.9523	0.9563	0.9600	0.9634	0.9667	0.9697	0.9726	0.9753	0.9779	0.9803	0.9827
0.55		1.1164	1.1216	1.1264	1.1309	1.1351	1.1391	1.1429	1.1464	1.1498	1.1530	1.1560
0.60		1.2977	1.3043	1.3105	1.3163	1.3218	1.3269	1.3317	1.3363	1.3406	1.3447	1.3486
0.65		1.4978	1.5062	1.5140	1.5213	1.5282	1.5347	1.5408	1.5466	1.5521	1.5573	1.5622
0.70		1.7183	1.7287	1.7385	1.7476	1.7562	1.7643	1.7720	1.7793	1.7861	1.7927	1.7990
0.75		1.9610	1.9738	1.9858	1.9971	2.0077	2.0178	2.0273	2.0362	2.0447	2.0528	2.0605
0.80		2.2276	2.2433	2.2580	2.2718	2.2848	2.2971	2.3088	2.3198	2.3302	2.3402	2.3498
0.85		2.5203	2.5393	2.5571	2.5739	2.5897	2.6047	2.6189	2.6323	2.6450	2.6571	2.6686
0.90		2.8611	2.8860	2.9055	2.9207	2.9349	2.9489	2.9608	2.9713	2.9813	3.0003	3.0202
0.95		3.1925	3.2199	3.2457	3.2699	3.2928	3.3145	3.3350	3.3545	3.3730	3.3906	3.4073
1.00		3.5771	3.6096	3.6402	3.6691	3.6964	3.7222	3.7467	3.7699	3.7920	3.8130	3.8331
1.05		3.9973	4.0358	4.0720	4.1062	4.1386	4.1692	4.1982	4.2258	4.2520	4.2770	4.3008
1.10		4.4562	4.5015	4.5441	4.5844	4.6226	4.6587	4.6930	4.7256	4.7567	4.7862	4.8145
1.15		4.9568	5.0098	5.0599	5.1072	5.1520	5.1945	5.2349	5.2732	5.3098	5.3446	5.3779
1.20		5.5026	5.5645	5.6229	5.6782	5.7306	5.7804	5.8276	5.8726	5.9154	5.9563	5.9953
1.25		6.0971	6.1690	6.2370	6.3014	6.3625	6.4205	6.4756	6.5281	6.5782	6.6259	6.6715
1.30		6.7441	6.8275	6.9063	6.9810	7.0519	7.1193	7.1834	7.2445	7.3027	7.3584	7.4115
1.35		7.4478	7.5441	7.6352	7.7216	7.8037	7.8817	7.9560	8.0269	8.0949	8.1591	8.2209
1.40		8.2126	8.3235	8.4285	8.5281	8.6229	8.7130	8.7988	8.8807	8.9589	9.0337	9.1052
1.45		9.0433	9.1706	9.2913	9.4058	9.5148	9.6186	9.7175	9.8119	9.9021	9.9884	10.0710
1.50		9.9450	10.0907	10.2289	10.3603	10.4854	10.6046	10.7183	10.8268	10.9306	11.0300	11.1252
1.55		10.9229	11.0893	11.2474	11.3978	11.5409	11.6775	11.8078	11.9324	12.0515	12.1656	12.2750
1.60		11.9831	12.1727	12.3530	12.5246	12.6882	12.8443	12.9933	13.1359	13.2724	13.4031	13.5280
1.65		13.1317	13.3474	13.5525	13.7480	13.9344	14.1124	14.2826	14.4454	14.6013	14.7508	14.8942
1.70		14.3755	14.6202	14.8532	15.0754	15.2874	15.4900	15.6838	15.8693	16.0471	16.2174	16.3813
1.75		15.7215	15.9987	16.2625	16.5148	16.7555	16.9856	17.2058	17.4168	17.6192	17.8134	17.9999
1.80		17.1775	17.4908	17.7896	18.0749	18.3476	18.6085	18.8584	19.0979	19.3278	19.5485	19.7607
1.85		18.7515	19.1050	19.4425	19.7649	20.0734	20.3687	20.6517	20.9232	21.1838	21.4343	21.6751
1.90		20.4524	20.8506	21.2311	21.5949	21.9431	22.2768	22.5968	22.9040	23.1990	23.4827	23.7557
1.95		22.2894	22.7373	23.1655	23.5753	23.9680	24.3444	24.7057	25.0526	25.3861	25.7069	26.0158
2.00		24.2726	24.7755	25.2569	25.7179	26.1598	26.5838	26.9909	27.3822	27.7586	28.1209	28.4698
2.05		26.4125	26.9766	27.5168	28.0345	28.5312	29.0081	29.4663	29.9070	30.3311	30.7396	31.1333
2.10		28.7208	29.3524	29.9577	30.5384	31.0958	31.6314	32.1465	32.6421	33.1194	33.5793	34.0228
2.15		31.2093	31.9156	32.5931	33.2434	33.8683	34.4691	35.0472	35.6039	36.1403	36.6575	37.1565
2.20		33.8912	34.6800	35.4372	36.1648	36.8642	37.5373	38.1854	38.8098	39.4118	39.9926	40.5533
2.25		36.7802	37.6601	38.5055	39.3183	40.1004	40.8534	41.5790	42.2785	42.9534	43.6049	44.2342
2.30		39.8913	40.8716	41.8142	42.7213	43.5946	44.4362	45.2475	46.0293	46.7829	47.5188	48.2212
2.35		43.2400	44.3310	45.3809	46.3919	47.3661	48.3055	49.2117	50.0866	50.9318	51.7486	52.5384
2.40		46.8434	48.0561	49.2242	50.3498	51.4333	52.4827	53.4939	54.4708	55.4149	56.3280	57.2115
2.45		50.7192	52.0659	53.3640	54.6160	55.8242	56.9909	58.1180	59.2075	60.2612	61.2820	62.2679
2.50		54.8866	56.3805	57.8217	59.2128	60.5563	61.8544	63.1094	64.3233	65.4981	66.6355	67.7372
2.55		59.3660	61.0216	62.6200	64.1642	65.6565	67.0996	68.4956	69.8468	71.1552	72.4228	73.6513
2.60		64.1791	66.0121	67.7833	69.4957	71.1519	72.7545	74.3059	75.8085	77.2644	78.6756	80.0442
2.65		69.3490	71.3766	73.3375	75.2346	77.0709	78.8491	80.5716	82.2410	83.8595	85.4293	86.9526
2.70		74.9004	77.1412	79.3101	81.4101	83.4443	85.4154	87.3262	89.1793	90.9770	92.7217	94.4156
2.75		80.8596	83.3339	85.7307	88.0533	90.3047	92.4879	94.6058	96.6609	98.6566	100.5933	102.4753
2.80		87.2544	89.9842	92.6308	95.1974	97.6872	100.1033	102.4486	104.7260	106.9381	109.0876	111.1769
2.85		94.1147	97.1239	100.0439	102.8778	105.6289	108.3006	110.8957	113.4174	115.8683	118.2512	120.5688
2.90		101.4720	104.7868	108.0057	111.1323	114.1700	117.1218	119.9912	122.7811	125.4944	128.1341	130.7027
2.95		109.3601	113.0086	116.5545	120.0014	123.3527	126.6118	129.7818	132.8661	135.8677	138.7895	141.6344
3.00		117.8149	121.8276	125.7308	129.5280	133.2226	136.8182	140.3179	143.7252	147.0431	150.2749	153.4234
3.05		126.8744	131.2846	135.5780	139.7581	143.8283	147.7921	151.6530	155.4144	159.0794	162.6514	166.1334
3.10		136.5793	141.4230	146.1422	150.7405	155.2213	159.5881	163.8445	167.9938	172.0395	175.9848	179.8329
3.15		146.9726	152.2887	157.4725	162.5274	167.4568	172.2644	176.9535	181.5277	185.9904	190.3450	194.5949
3.20		158.1003	163.9310	169.6213	175.1744	180.5938	185.8831	191.0455	196.0847	201.0042	205.8075	210.4979
3.25		170.0111	176.4021	182.6443	188.7408	194.6951	200.5104	206.1902	211.7382	217.1577	222.4524	227.6257
3.30		182.7568	189.7574	196.6008	203.2897	209.8274	216.2171	222.4623	228.5665	234.5331	240.3658	246.0682
3.35		196.3925	204.0562	211.5540	218.8889	226.0622	233.0787	239.9413	246.6533	253.2183	259.6398	265.9215
3.40		210.9766	219.3612	227.5710	235.6082	243.4754	251.1757	258.7121	266.0881	273.3071	280.3727	287.2883
3.45		226.5713	235.7392	244.7233	253.5256	262.1482	270.5938	278.8865	286.9864	294.8999	302.6655	310.2787
3.50		243.2426	253.2612	263.0872	272.7217	282.1667	291.4246	300.4991	309.3901	318.1034	326.6428	335.0104
3.55		261.0605	272.0027	282.7433	293.2830	303.6232	313.7658	323.7132	333.4681	343.0335	352.4127	361.6091
3.60		280.0993	292.0438	303.7778	315.3014	326.6155	337.7212	348.6208	359.3165	369.8111	380.1076	390.2094
3.65		300.4386	313.4692	326.2823	338.8750	351.2478	363.4018	375.3392	387.0652	398.5862	409.9064	420.9538
3.70		322.1615	336.3713	350.3540	364.1076	377.6315	390.9255	403.9908	416.8286	429.4412	441.8308	454.0004
3.75		345.3374	360.8443	376.0963	391.1103	405.8846	420.4183	434.7118	448.7658	462.5819	476.1622	489.5091
3.80		370.1203	386.9909	403.6191	420.0008	436.1331	452.0142	467.6435	483.0213	498.1483	513.0262	527.6569
3.85		396.5510	414.9195	433.0393	450.9046	468.5110	485.8539	502.9376	519.7555	536.3097	552.6012	568.6317
3.90		424.7552	444.7453	464.4810	483.9547	503.1609	522.0955	540.7556	559.1396	577.2471	595.0781	612.6338
3.95		454.8457	476.5903	498.0759	519.2931	540.2346	560.8948	581.2695	601.3563	621.1534	640.6603	659.8772
4.00		486.9420	510.5842	533.9641	557.0703	579.8933	602.4260	624.6628	646.5999	668.234		

Tabelle II

n	35	36	37	38	39	40	41	42	43	44	45
0.05	0.0535	0.0535	0.0536	0.0536	0.0536	0.0536	0.0536	0.0536	0.0536	0.0536	0.0536
0.10	0.1145	0.1146	0.1146	0.1147	0.1147	0.1147	0.1148	0.1148	0.1148	0.1149	0.1149
0.15	0.1840	0.1841	0.1842	0.1843	0.1844	0.1844	0.1845	0.1846	0.1847	0.1848	0.1848
0.20	0.2625	0.2627	0.2629	0.2631	0.2633	0.2634	0.2636	0.2637	0.2639	0.2640	0.2642
0.25	0.3512	0.3515	0.3518	0.3522	0.3525	0.3527	0.3530	0.3533	0.3535	0.3538	0.3540
0.30	0.4509	0.4515	0.4520	0.4525	0.4529	0.4534	0.4538	0.4542	0.4546	0.4550	0.4553
0.35	0.5630	0.5638	0.5645	0.5653	0.5659	0.5666	0.5672	0.5678	0.5684	0.5690	0.5695
0.40	0.6884	0.6895	0.6906	0.6916	0.6926	0.6936	0.6943	0.6953	0.6961	0.6969	0.6977
0.45	0.8285	0.8301	0.8315	0.8330	0.8343	0.8356	0.8368	0.8380	0.8391	0.8402	0.8412
0.50	0.9849	0.9869	0.9889	0.9908	0.9926	0.9943	0.9960	0.9975	0.9991	1.0005	1.0019
0.55	1.1589	1.1616	1.1642	1.1667	1.1690	1.1713	1.1735	1.1755	1.1775	1.1794	1.1812
0.60	1.3523	1.3558	1.3591	1.3623	1.3654	1.3683	1.3711	1.3738	1.3763	1.3788	1.3811
0.65	1.5669	1.5713	1.5756	1.5797	1.5835	1.5873	1.5908	1.5942	1.5975	1.6008	1.6037
0.70	1.8047	1.8103	1.8156	1.8207	1.8256	1.8303	1.8347	1.8390	1.8431	1.8471	1.8508
0.75	2.0678	2.0748	2.0814	2.0877	2.0938	2.0996	2.1052	2.1105	2.1156	2.1205	2.1252
0.80	2.3586	2.3671	2.3753	2.3831	2.3906	2.3977	2.4046	2.4112	2.4175	2.4235	2.4294
0.85	2.6795	2.6900	2.7002	2.7099	2.7186	2.7274	2.7358	2.7439	2.7516	2.7590	2.7661
0.90	3.0335	3.0462	3.0583	3.0698	3.0809	3.0915	3.1017	3.1115	3.1208	3.1299	3.1385
0.95	3.4233	3.4385	3.4531	3.4671	3.4804	3.4932	3.5055	3.5173	3.5286	3.5395	3.5500
1.00	3.8522	3.8704	3.8879	3.9048	3.9205	3.9359	3.9506	3.9647	3.9783	3.9914	4.0040
1.05	4.3236	4.3453	4.3661	4.3860	4.4051	4.4234	4.4410	4.4579	4.4741	4.4897	4.5047
1.10	4.8414	4.8672	4.8919	4.9154	4.9380	4.9598	4.9806	5.0007	5.0199	5.0385	5.0564
1.15	5.4094	5.4400	5.4691	5.4969	5.5237	5.5495	5.5743	5.5977	5.6205	5.6425	5.6637
1.20	6.0326	6.0683	6.1023	6.1333	6.1667	6.1969	6.2259	6.2539	6.2808	6.3067	6.3316
1.25	6.7192	6.7570	6.7970	6.8354	6.8722	6.9077	6.9417	6.9745	7.0060	7.0365	7.0654
1.30	7.4624	7.5112	7.5579	7.6028	7.6458	7.6872	7.7270	7.7654	7.8023	7.8379	7.8722
1.35	8.2800	8.3387	8.3910	8.4432	8.4933	8.5415	8.5879	8.6326	8.6756	8.7171	8.7572
1.40	9.1737	9.2394	9.3029	9.3630	9.4212	9.4772	9.5311	9.5830	9.6331	9.6814	9.7280
1.45	10.1502	10.2262	10.2991	10.3692	10.4365	10.5014	10.5639	10.6240	10.6820	10.7381	10.7922
1.50	11.2164	11.3040	11.3881	11.4690	11.5468	11.6217	11.6939	11.7635	11.8306	11.8954	11.9580
1.55	12.3799	12.4807	12.5775	12.6706	12.7602	12.8465	12.9297	13.0100	13.0874	13.1622	13.2345
1.60	13.6488	13.7645	13.8756	13.9826	14.0855	14.1848	14.2804	14.3728	14.4619	14.5480	14.6313
1.65	15.0319	15.1643	15.2917	15.4142	15.5323	15.6461	15.7560	15.8619	15.9643	16.0633	16.1590
1.70	16.5387	16.6899	16.8355	16.9757	17.1109	17.2412	17.3669	17.4884	17.6057	17.7192	17.8289
1.75	18.1793	18.3518	18.5179	18.6780	18.8323	18.9812	19.1250	19.2638	19.3981	19.5279	19.6535
1.80	19.9647	20.1611	20.3503	20.5327	20.7087	20.8785	21.0425	21.2010	21.3543	21.5026	21.6462
1.85	21.9069	22.1301	22.3452	22.5527	22.7529	22.9462	23.1330	23.3136	23.4884	23.6575	23.8212
1.90	24.0185	24.2717	24.5159	24.7515	24.9790	25.1987	25.4111	25.6166	25.8154	26.0079	26.1944
1.95	26.3133	26.6002	26.8769	27.1440	27.4020	27.6514	27.8926	28.1259	28.3514	28.5706	28.7827
2.00	28.8062	29.1306	29.4437	29.7461	30.0384	30.3209	30.5934	30.8560	31.1122	31.3636	31.6093
2.05	31.5130	31.8793	32.2331	32.5751	32.9056	33.2253	33.5347	33.8344	34.1247	34.4061	34.6791
2.10	34.4909	34.8641	35.2233	35.5692	35.9025	36.2237	36.5335	36.8326	37.0724	37.3408	37.5973
2.15	37.6383	38.0137	38.3815	38.7388	39.0896	39.4317	40.0212	40.5948	40.9658	41.3258	41.6752
2.20	41.0950	41.6185	42.1249	42.6146	43.0889	43.5483	43.9934	44.4251	44.8438	45.2501	45.6444
2.25	44.8424	45.4305	45.9996	46.5505	47.0841	47.6012	48.1025	48.5887	49.0607	49.5188	49.9638
2.30	48.9034	49.5634	50.2023	50.8211	51.4208	52.0021	52.5660	53.1132	53.6444	54.1603	54.6615
2.35	53.0326	54.0424	54.7990	55.4533	56.1264	56.7793	57.4128	58.0278	58.6251	59.2054	59.7694
2.40	58.0667	58.8950	59.6977	60.4759	61.2306	61.9630	62.6740	63.3645	64.0353	64.6874	65.3214
2.45	63.2239	64.1504	65.0487	65.9199	66.7653	67.5860	68.3931	69.1876	69.9703	70.7422	71.5034
2.50	68.6049	69.8402	70.8443	71.8168	72.7648	73.6836	74.5763	75.4440	76.2877	77.1086	77.9073
2.55	74.8426	75.9982	77.1196	78.2085	79.2660	80.2936	81.2925	82.2638	83.2087	84.1282	85.0232
2.60	81.3720	82.6608	83.9121	85.1276	86.3088	87.4570	88.5736	89.6598	90.7168	91.7459	92.7481
2.65	88.4912	89.8672	91.2621	92.6178	93.9357	95.2175	96.4645	97.6782	98.8597	100.0105	101.1315
2.70	96.0608	97.6592	99.2129	100.7235	102.1929	103.6225	105.0140	106.3689	107.6884	108.9740	110.2270
2.75	104.3042	106.0822	107.8111	109.4930	111.1297	112.7229	114.2743	115.7855	117.2579	118.6930	120.0922
2.80	113.2084	115.1843	117.1067	118.9777	120.7994	122.5734	124.3016	125.9857	127.6274	129.2281	130.7893
2.85	122.8234	125.0175	127.1534	129.2332	131.2589	133.2327	135.1565	137.0318	138.8607	140.6446	142.3852
2.90	133.2031	135.6376	138.0088	140.3188	142.5699	144.7643	146.9039	148.9906	151.0264	153.0130	154.9521
2.95	144.4052	147.1045	149.7348	152.2986	154.7982	157.2359	159.6138	161.9360	164.1985	166.4092	168.5678
3.00	156.4916	159.4821	162.3978	165.2412	168.0147	170.7207	173.3616	175.9395	178.4565	180.9147	183.3160
3.05	169.5285	172.8394	176.0691	179.2202	182.2954	185.2972	188.2280	191.0902	193.8859	196.6174	199.2868
3.10	183.5870	187.2500	190.8251	194.3149	197.7223	201.0498	204.3001	207.4757	210.5790	213.6121	216.5774
3.15	198.7432	202.7931	206.7478	210.6100	214.3829	218.0691	221.6714	225.1924	228.6346	232.0004	235.2922
3.20	215.0788	219.5534	223.9251	228.1968	232.3717	236.4525	240.4422	244.3436	248.1592	251.8917	255.5436
3.25	232.6810	237.6218	242.4514	247.1729	251.7896	256.3044	260.7204	265.0405	269.2674	273.4040	277.4528
3.30	251.6437	257.0958	262.4278	267.6432	272.7452	277.7371	282.6219	287.4026	292.0823	296.6638	301.1499
3.35	272.0668	278.0793	283.9626	289.7201	295.3551	300.8710	306.2710	311.5584	316.7362	321.8074	326.7751
3.40	294.0577	300.6844	307.1720	313.5240	319.7440	325.8354	331.8016	337.6458	343.3714	348.9814	354.4789
3.45	317.7312	325.0305	332.1804	339.1844	346.0461	352.7691	359.3569	365.8129	372.1405	378.3430	384.4230
3.50	343.2102	351.2458	359.1211	366.8396	374.4050	381.8210	389.0911	396.2188	403.2078	410.0614	416.7830
3.55	370.6262	379.4676	388.1370	396.6382	404.9748	413.1508	421.1692	429.0344	436.7496	444.3186	451.7444
3.60	400.1199	409.8426	419.3811	428.7393	437.9207	446.9294	455.7688	464.4429	472.9554	481.3100	489.5102
3.65	431.8418	442.5279	453.0172	463.3132	473.4198	483.3408	493.0801	502.6414	512.0286	521.2453	530.2956
3.70	465.9530	477.6918	489.2205	500.5426	511.6619	522.5821	533.3072	543.8410	554.1874	564.3503	574.3335
3.75	502.6254	515.5142	528.1790	540.6231	552.8503	564.8644	576.6691	588.2685	599.6664	610.8668	621.8736
3.80	542.0432	556.1876	570.0935	583.7641	597.2030	610.4139	623.4007	636.1671	648.7172	661.0550	673.1845
3.85	584.4031	599.9180	615.1792	630.1899	644.9534	659.4733	673.7535	687.7978	701.6098	715.1940	728.5542
3.90	629.9155	646.9255	663.6662	680.1405	696.3515	712.3026	727.9975	743.4400	758.6340	773.5834	788.2924
3.95	678.8051	697.4456	715.8006	733.8728	751.6649	769.1803	786.4222	803.3944	820.1007	836.5450	852.7314
4.00	731.3122	751.7300	771.8460	791.6620	811.1806	830.4047	849.3373	867.9823	886.3434	904.4240	922.2282

Table II

t	n	46	47	48	49	50	55	60	65	70	75	80
0.05		0.0536	0.0536	0.0536	0.0536	0.0536	0.0537	0.0537	0.0537	0.0537	0.0537	0.0537
0.10		0.1149	0.1149	0.1150	0.1150	0.1150	0.1152	0.1152	0.1153	0.1154	0.1154	0.1155
0.15		0.1849	0.1850	0.1850	0.1851	0.1851	0.1854	0.1856	0.1858	0.1859	0.1861	0.1862
0.20		0.2643	0.2645	0.2646	0.2647	0.2648	0.2653	0.2657	0.2661	0.2663	0.2666	0.2668
0.25		0.3542	0.3544	0.3546	0.3548	0.3550	0.3558	0.3565	0.3571	0.3576	0.3581	0.3585
0.30		0.4557	0.4560	0.4563	0.4566	0.4569	0.4582	0.4593	0.4603	0.4611	0.4618	0.4624
0.35		0.5700	0.5705	0.5710	0.5714	0.5718	0.5738	0.5754	0.5768	0.5780	0.5791	0.5800
0.40		0.6984	0.6991	0.6997	0.7004	0.7010	0.7038	0.7061	0.7081	0.7098	0.7113	0.7126
0.45		0.8422	0.8432	0.8441	0.8450	0.8458	0.8496	0.8529	0.8556	0.8580	0.8602	0.8620
0.50		1.0032	1.0045	1.0057	1.0069	1.0081	1.0132	1.0176	1.0213	1.0245	1.0273	1.0306
0.55		1.1830	1.1847	1.1863	1.1879	1.1894	1.1961	1.2019	1.2068	1.2111	1.2148	1.2181
0.60		1.3834	1.3856	1.3877	1.3897	1.3917	1.4004	1.4079	1.4143	1.4198	1.4246	1.4285
0.65		1.6065	1.6093	1.6120	1.6146	1.6171	1.6283	1.6378	1.6459	1.6530	1.6592	1.6647
0.70		1.8545	1.8580	1.8614	1.8646	1.8678	1.8819	1.8939	1.9042	1.9132	1.9211	1.9280
0.75		2.1298	2.1341	2.1383	2.1424	2.1463	2.1640	2.1790	2.1919	2.2032	2.2130	2.2217
0.80		2.4350	2.4404	2.4456	2.4506	2.4554	2.4773	2.4959	2.5119	2.5259	2.5381	2.5490
0.85		2.7730	2.7796	2.7860	2.7921	2.7981	2.8249	2.8475	2.8675	2.8846	2.8997	2.9131
0.90		3.1469	3.1549	3.1627	3.1702	3.1774	3.2101	3.2380	3.2620	3.2830	3.3015	3.3178
0.95		3.5600	3.5698	3.5792	3.5882	3.5970	3.6365	3.6703	3.6995	3.7249	3.7475	3.7673
1.00		4.0161	4.0278	4.0391	4.0500	4.0605	4.1082	4.1489	4.1841	4.2149	4.2419	4.2660
1.05		4.5192	4.5332	4.5467	4.5597	4.5723	4.6294	4.6782	4.7204	4.7574	4.7899	4.8188
1.10		5.0736	5.0903	5.1063	5.1218	5.1368	5.2048	5.2531	5.3015	5.3577	5.4118	5.4612
1.15		5.6841	5.7038	5.7228	5.7412	5.7590	5.8396	5.9088	5.9888	6.0714	6.1578	6.2480
1.20		6.3557	6.3789	6.4016	6.4231	6.4441	6.5395	6.6213	6.7092	6.8042	6.9077	7.0108
1.25		7.0941	7.1215	7.1479	7.1734	7.1981	7.3104	7.4069	7.5077	7.6142	7.7283	7.8512
1.30		7.9054	7.9374	7.9683	7.9982	8.0271	8.1589	8.2722	8.3709	8.4657	8.5541	8.6474
1.35		8.7959	8.8333	8.8694	8.9044	8.9382	9.0923	9.2251	9.3407	9.4423	9.5324	9.6166
1.40		9.7730	9.8166	9.8586	9.8994	9.9388	10.1185	10.2796	10.4268	10.5677	10.7030	10.8326
1.45		10.8444	10.8950	10.9439	10.9912	11.0370	11.2461	11.4266	11.5882	11.7429	11.8959	12.0481
1.50		12.0165	12.0771	12.1337	12.1885	12.2416	12.4841	12.6938	12.8770	13.0384	13.1818	13.3099
1.55		13.3044	13.3720	13.4374	13.5008	13.5622	13.8428	14.0858	14.2983	14.4857	14.6522	14.8012
1.60		14.7118	14.7897	14.8652	14.9383	15.0091	15.3311	15.6140	15.8659	16.0770	16.2611	16.4229
1.65		16.2515	16.3412	16.4280	16.5121	16.5937	16.9669	17.2910	17.5750	17.8259	18.0493	18.2494
1.70		17.9351	18.0380	18.1377	18.2343	18.3280	18.7572	19.1303	19.4576	19.7471	20.0050	20.2362
1.75		19.7752	19.8930	20.0072	20.1180	20.2255	20.7180	21.1466	21.5231	21.8565	22.1557	22.4204
1.80		21.7852	21.9200	22.0506	22.1773	22.3003	22.8645	23.3562	23.7885	24.1717	24.5156	24.8206
1.85		23.9799	24.1337	24.2829	24.4277	24.5682	25.2134	25.7764	26.2719	26.7115	27.1042	27.4570
1.90		26.3752	26.5505	26.7206	26.8856	27.0459	27.7825	28.4261	28.9934	29.4968	29.9470	30.3518
1.95		28.9883	29.1878	29.3814	29.5693	29.7519	30.5915	31.3260	31.9740	32.5500	33.0653	33.5291
2.00		31.8379	32.0645	32.2844	32.4981	32.7057	33.6613	34.4983	35.2577	35.9495	36.5847	37.1654
2.05		34.9439	35.2010	35.4506	35.6932	35.9289	37.0150	37.9676	38.8100	39.5603	40.2348	40.8390
2.10		38.3282	38.6195	38.9024	39.1774	39.4447	40.6774	41.7601	42.7186	43.5731	44.3396	45.0316
2.15		42.0144	42.3439	42.6641	42.9755	43.2782	44.6756	45.9045	46.9936	47.9657	48.8385	49.6265
2.20		46.0278	46.4003	46.7623	47.1143	47.4568	49.0387	50.4317	51.6679	52.7722	53.7647	54.6618
2.25		50.3961	50.8164	51.2291	51.6227	52.0066	53.7984	55.3758	56.7769	58.0301	59.1575	60.1771
2.30		55.1488	55.6226	56.0834	56.5320	56.9686	58.9889	60.7728	62.3595	63.7799	65.0549	66.2166
2.35		60.3179	60.8514	61.3706	61.8760	62.3682	64.6475	66.6629	68.4575	70.0657	71.5152	72.8283
2.40		65.9382	66.5383	67.1226	67.6915	68.2456	70.8145	73.0888	75.1164	76.9354	78.5764	80.0643
2.45		72.0470	72.7214	73.3782	74.0179	74.6412	77.5332	80.0972	82.3859	84.4412	86.2971	87.9814
2.50		78.6847	79.4418	80.1793	80.8978	81.5963	84.8510	87.7388	90.3195	92.6397	94.7366	96.6412
2.55		85.8948	86.7438	87.5712	88.3777	89.1641	92.8190	96.0683	98.9756	101.5921	103.9593	106.1110
2.60		93.7243	94.6757	95.6030	96.5073	97.3893	101.4923	105.1450	108.4173	111.3654	114.0351	116.4639
2.65		102.2240	103.2890	104.3374	105.3404	106.3288	110.9308	115.0334	118.7132	122.0320	125.0403	127.7795
2.70		111.4484	112.6396	113.8015	114.9359	116.0419	121.1991	125.8030	129.9375	133.6705	137.0575	140.1441
2.75		121.4568	122.7879	124.0869	125.3548	126.5927	132.3672	137.5294	142.1710	146.3864	150.1766	153.6520
2.80		132.3124	133.7988	135.2499	136.6665	138.0502	144.5107	150.2943	155.5010	160.2123	164.4992	168.4052
2.85		144.0840	145.7424	147.3619	148.9437	150.4889	157.7113	164.1860	170.0221	175.3088	180.1194	184.5151
2.90		156.8454	158.6944	160.5005	162.2653	163.9900	172.0577	179.3005	185.8372	191.7649	197.1643	202.1022
2.95		170.6762	172.7361	174.7489	176.7163	178.6397	187.6451	195.7414	203.0574	209.6992	215.7549	221.2282
3.00		185.6623	187.9553	190.1970	192.3887	194.5322	204.5771	213.6208	221.8032	229.2399	236.0271	242.2454
3.05		201.8960	204.4470	206.9415	209.3814	211.7684	222.9650	233.0801	242.2053	250.5262	258.1240	265.0989
3.10		219.4749	222.3128	225.0870	227.8013	230.4577	242.9295	254.1906	264.4049	273.7090	282.2176	290.0272
3.15		238.5122	241.6627	244.7458	247.7634	250.7176	264.6008	277.1543	288.3553	298.6921	308.2695	317.2129
3.20		259.1173	262.6151	266.0392	269.3919	272.6752	288.1195	302.1047	314.8222	326.4327	337.0719	346.8548
3.25		281.4144	285.2973	289.0978	292.8203	296.4671	313.6373	329.2079	343.3851	356.3431	368.2291	379.1684
3.30		305.5433	309.8466	314.0623	318.1930	322.2409	341.1181	358.6433	374.8843	388.8916	402.1626	414.8879
3.35		331.6419	336.4107	341.0842	345.6649	350.1555	371.3389	390.0051	408.1924	424.3039	439.1147	452.7652
3.40		359.8670	365.1486	370.3265	375.4034	380.3822	403.8907	425.3030	444.8746	462.8244	479.3400	494.5823
3.45		390.3853	396.2314	401.9648	407.5885	413.1033	439.1793	462.9634	484.7311	504.7180	523.1269	540.1324
3.50		423.3759	429.8433	436.1884	442.4142	448.5238	477.4276	503.8314	528.0283	550.2714	570.7797	589.7421
3.55		459.0316	466.1824	473.2006	480.0893	486.8517	518.8748	548.1714	575.0543	599.7953	622.6303	643.7639
3.60		497.9396	505.4419	513.2204	520.8385	528.3195	563.3195	596.2691	626.1207	653.6259	679.0345	702.5800
3.65		539.1829	547.9110	556.4834	564.9037	573.1754	612.4215	648.4330	681.5643	712.1270	740.3943	766.6409
3.70		584.1408	593.7761	603.2430	612.5493	621.6867	665.1009	704.9964	741.7493	777.6924	807.1199	836.2681
3.75		632.9208	643.3223	653.7719	664.0435	674.1408	722.1422	766.3189	807.0697	844.7496	879.6731	912.1173
3.80		685.1097	696.8346	708.3633	719.6994	730.8475	783.8950	832.7889	877.9509	919.7590	958.5496	994.6208
3.85		741.6646	754.6193	767.3324	779.8378	792.1399	850.4761	904.8256	954.8530	1001.2200	1044.2862	1084.3717
3.90		802.7651	817.0056	831.0182	844.8070	858.3754	923.0772	982.8813	1038.2730	1089.6728	1137.4445	1181.9912
3.95		868.8642	884.3473	899.7891	914.9839	929.9420	1001.3392	1067.4443	1128.7480	1185.7016	1238.7139	1288.1524
4.00		939.7603	957.0244	974.0249	990.7660	1007.2521	1086.0103	1159.0410	1226.8581	1289.9382	1348.7162	1403.5847

Tabelle II

t	n	85	90	95	100	105	110	115	120	125	130	140
0.05	0.0538	0.0538	0.0538	0.0538	0.0538	0.0538	0.0538	0.0538	0.0538	0.0538	0.0538	0.0538
0.10	0.1155	0.1156	0.1156	0.1156	0.1156	0.1157	0.1157	0.1157	0.1158	0.1158	0.1158	0.1158
0.15	0.1863	0.1864	0.1864	0.1864	0.1865	0.1866	0.1867	0.1867	0.1868	0.1868	0.1869	0.1870
0.20	0.2670	0.2672	0.2674	0.2674	0.2675	0.2677	0.2678	0.2679	0.2680	0.2681	0.2682	0.2683
0.25	0.3588	0.3592	0.3594	0.3594	0.3597	0.3599	0.3601	0.3603	0.3605	0.3607	0.3608	0.3611
0.30	0.4610	0.4615	0.4619	0.4623	0.4627	0.4631	0.4635	0.4639	0.4643	0.4647	0.4651	0.4655
0.35	0.5809	0.5816	0.5823	0.5829	0.5835	0.5841	0.5847	0.5853	0.5859	0.5865	0.5871	0.5877
0.40	0.7138	0.7149	0.7158	0.7167	0.7175	0.7182	0.7189	0.7196	0.7203	0.7210	0.7217	0.7224
0.45	0.8636	0.8651	0.8664	0.8676	0.8687	0.8697	0.8706	0.8714	0.8722	0.8729	0.8737	0.8744
0.50	1.0320	1.0340	1.0358	1.0374	1.0389	1.0402	1.0414	1.0423	1.0431	1.0438	1.0445	1.0453
0.55	1.2210	1.2236	1.2260	1.2281	1.2301	1.2318	1.2334	1.2349	1.2363	1.2376	1.2387	1.2399
0.60	1.4328	1.4362	1.4393	1.4420	1.4446	1.4469	1.4490	1.4510	1.4528	1.4544	1.4559	1.4574
0.65	1.6696	1.6740	1.6779	1.6815	1.6848	1.6877	1.6904	1.6930	1.6953	1.6974	1.6994	1.7013
0.70	1.9342	1.9398	1.9448	1.9493	1.9533	1.9572	1.9607	1.9639	1.9668	1.9696	1.9721	1.9745
0.75	2.2295	2.2365	2.2428	2.2485	2.2537	2.2584	2.2628	2.2668	2.2705	2.2740	2.2774	2.2807
0.80	2.5586	2.5673	2.5751	2.5822	2.5887	2.5946	2.6000	2.6050	2.6097	2.6139	2.6176	2.6211
0.85	2.9250	2.9357	2.9454	2.9541	2.9621	2.9694	2.9761	2.9823	2.9880	2.9933	2.9983	3.0029
0.90	3.3324	3.3455	3.3573	3.3680	3.3778	3.3868	3.3950	3.4026	3.4097	3.4162	3.4221	3.4277
0.95	3.7850	3.8010	3.8154	3.8283	3.8404	3.8514	3.8614	3.8707	3.8793	3.8872	3.8945	3.9015
1.00	4.2875	4.3068	4.3242	4.3401	4.3546	4.3678	4.3800	4.3913	4.4017	4.4113	4.4201	4.4287
1.05	4.8447	4.8680	4.8890	4.9081	4.9255	4.9415	4.9562	4.9698	4.9824	4.9940	5.0045	5.0150
1.10	5.4622	5.4901	5.5153	5.5382	5.5591	5.5784	5.5960	5.6123	5.6274	5.6415	5.6547	5.6669
1.15	6.1460	6.1793	6.2094	6.2368	6.2618	6.2847	6.3058	6.3253	6.3434	6.3602	6.3757	6.3904
1.20	6.9026	6.9421	6.9779	7.0105	7.0403	7.0676	7.0927	7.1160	7.1375	7.1575	7.1761	7.1935
1.25	7.7392	7.7860	7.8284	7.8670	7.9023	7.9345	7.9646	7.9922	8.0178	8.0415	8.0633	8.0843
1.30	8.6637	8.7189	8.7690	8.8147	8.8564	8.8948	8.9301	8.9627	8.9930	9.0211	9.0478	9.0731
1.35	9.6847	9.7497	9.8088	9.8624	9.9116	9.9568	9.9984	10.0369	10.0726	10.1058	10.1367	10.1657
1.40	10.8116	10.8878	10.9571	11.0202	11.0780	11.1311	11.1800	11.2253	11.2673	11.3064	11.3428	11.3769
1.45	12.0546	12.1439	12.2249	12.2988	12.3665	12.4288	12.4862	12.5393	12.5886	12.6345	12.6771	12.7173
1.50	13.4251	13.5292	13.6239	13.7103	13.7894	13.8622	13.9294	13.9915	14.0492	14.1029	14.1527	14.1999
1.55	14.9353	15.0565	15.1668	15.2675	15.3597	15.4446	15.5230	15.5955	15.6629	15.7257	15.7839	15.8390
1.60	16.5986	16.7395	16.8676	16.9847	17.0920	17.1908	17.2821	17.3666	17.4451	17.5183	17.5864	17.6504
1.65	18.4297	18.5930	18.7417	18.8775	19.0022	19.1169	19.2230	19.3212	19.4125	19.4976	19.5774	19.6514
1.70	20.4447	20.6373	20.8057	20.9631	21.1075	21.2406	21.3635	21.4775	21.5835	21.6822	21.7745	21.8609
1.75	22.6610	22.8793	23.0781	23.2600	23.4270	23.5810	23.7233	23.8553	23.9780	24.0925	24.2000	24.2995
1.80	25.0978	25.3494	25.5787	25.7886	25.9815	26.1593	26.3237	26.4763	26.6182	26.7506	26.8739	26.9902
1.85	27.7758	28.0653	28.3294	28.5712	28.7935	28.9986	29.1883	29.3644	29.5282	29.6810	29.8237	29.9579
1.90	30.7179	31.0505	31.3541	31.6323	31.8881	32.1242	32.3428	32.5456	32.7334	32.9062	33.0649	33.2107
1.95	33.9489	34.3305	34.6790	34.9985	35.2925	35.5639	35.8152	36.0486	36.2660	36.4689	36.6574	36.8316
2.00	37.4959	37.9331	38.3325	38.6989	39.0362	39.3478	39.6364	39.9046	40.1544	40.3876	40.6051	40.8077
2.05	41.3684	41.8885	42.3658	42.7654	43.1519	43.5090	43.8401	44.1477	44.4344	44.7022	44.9514	45.1882
2.10	45.5837	46.2301	46.7527	47.2327	47.6750	48.0840	48.4631	48.8157	49.1463	49.4581	49.7530	50.0323
2.15	50.3419	50.9936	51.5907	52.1390	52.6445	53.1121	53.5458	53.9492	54.3254	54.6771	55.0062	55.3158
2.20	55.4763	56.2194	56.8999	57.5255	58.1026	58.6366	59.1322	59.5933	60.0235	60.4277	60.8079	61.1661
2.25	61.1037	61.9495	62.7247	63.4376	64.0957	64.7048	65.2708	65.7999	66.2983	66.7700	67.2171	67.6425
2.30	67.2695	68.2313	69.1133	69.9249	70.6744	71.3686	72.0134	72.6139	73.1746	73.6991	74.1814	74.6252
2.35	74.0235	75.1159	76.1183	77.0414	77.8942	78.6844	79.4187	80.1029	80.7418	81.3399	81.8917	82.4000
2.40	81.4195	82.6591	83.7973	84.8459	85.8152	86.7138	87.5492	88.3279	89.0554	89.7367	90.3748	90.9730
2.45	89.5164	90.9217	92.2126	93.4028	94.5034	95.5243	96.4739	97.3593	98.1868	98.9600	99.6820	100.3570
2.50	98.3786	99.9699	101.4328	102.7822	104.0308	105.1896	106.2678	107.2737	108.2142	109.0955	109.9235	110.7015
2.55	108.0754	109.8759	111.5321	113.0608	114.4761	115.7901	117.0134	118.1550	119.2228	120.2238	121.1638	122.0489
2.60	118.6890	120.7183	122.5919	124.3220	125.9247	127.4155	128.8001	130.0946	131.3060	132.4421	133.5114	134.5194
2.65	130.2841	132.5830	134.7004	136.6570	138.4704	140.1557	141.7261	143.1930	144.5661	145.8543	147.0643	148.2033
2.70	142.9687	145.5630	147.9542	150.1490	152.1552	154.0785	155.9237	157.5933	159.1145	160.5145	161.8090	163.0943
2.75	156.8348	159.7602	162.4583	164.9344	167.2704	169.4625	171.5134	173.4332	175.2338	176.9216	178.5036	179.9855
2.80	171.9889	175.2852	178.3272	181.1433	183.7576	186.1909	188.4615	190.5851	192.5755	194.4468	196.1938	197.8316
2.85	188.5470	192.2584	195.6857	198.8603	201.8091	204.5553	207.1189	209.5177	211.7669	213.8800	215.8700	217.7449
2.90	206.6353	210.8109	214.6695	218.2458	221.5695	224.6664	227.5599	230.2665	232.8064	235.1936	237.4400	239.5620
2.95	226.3909	231.0854	235.4265	239.4525	243.1962	246.6862	249.9475	253.0018	255.8679	258.5629	261.1000	263.4969
3.00	247.9629	253.2374	258.1180	262.6470	266.8609	270.7914	274.4660	277.9088	281.1411	284.1814	287.0400	289.7500
3.05	271.5137	277.4357	282.9191	288.0108	292.7509	297.1745	301.3121	305.1905	308.8332	312.2610	315.4937	318.5435
3.10	297.2194	303.8642	310.0210	315.7415	321.0701	326.0453	330.7015	335.0678	339.1705	343.0327	346.6640	350.1152
3.15	325.2719	332.7228	339.6315	346.0544	352.0408	357.6334	362.8696	367.7822	372.4002	376.7493	380.8748	384.7289
3.20	355.8793	364.2292	371.9767	379.1840	385.9054	392.1879	398.0731	403.5971	408.7920	413.6864	418.3114	422.6714
3.25	389.2681	398.6198	407.3028	415.3855	422.9277	429.9812	436.5918	442.7997	448.6403	454.1452	459.3400	464.2456
3.30	425.6841	436.1517	445.8776	454.9369	463.3952	471.3098	478.7312	485.7037	492.2665	498.4466	504.2724	509.7724
3.35	465.3946	477.1048	487.9926	498.1407	507.6211	516.4971	524.8240	532.6510	540.0213	546.9736	553.5482	559.7782
3.40	508.6899	521.7827	533.9646	545.3262	555.9466	565.8915	575.2332	584.0147	592.2876	600.0944	607.4861	614.4953
3.45	555.8852	570.5160	584.1365	596.8519	608.7429	619.8880	630.3544	640.2017	649.4828	658.2446	666.5348	674.3748
3.50	607.3226	623.6636	638.8892	653.1078	666.4148	678.8938	690.6189	701.6557	712.0625	721.8913	731.1933	739.9958
3.55	663.3741	681.6157	698.6243	714.5184	729.4023	743.3679	756.4966	768.8605	780.5239	791.5440	801.9547	811.8547
3.60	724.4431	744.7963	763.7872	781.5633	798.1848	813.8065	828.4996	842.3335	855.4089	867.7589	879.4300	890.4669
3.65	790.9677	813.6658	834.8597	854.6909	873.2842	890.7499	907.1860	922.6798	937.3088	951.1428	964.2269	976.6000
3.70	863.4234	888.7243	912.3656	934.5015	955.2681	974.7865	993.1639	1010.4960	1026.8684	1042.3375	1057.0533	1070.9543
3.75	942.3262	970.5192	996.8743	1021.5711	1044.7547	1066.5570	1086.9956	1106.0755	1124.7906	1142.1251	1158.1478	1172.9160
3.80	1028.2361	1059.6286	1089.0044	1116.5461	1142.4162	1166.7587	1189.7025	1211.3626	1231.8420	1251.2543	1269.6142	1286.9442
3.85	1121.7606	1156.7049	1189.4281	1220.1289	1248.9840	1276.1509	1301.7705	1325.				

Tabelle II

t	n	700	800	900	1000	2000	3000	4000	5000	7000	10000	∞
0.05	0.0539	0.0539	0.0539	0.0539	0.0539	0.0539	0.0539	0.0539	0.0539	0.0539	0.0539	0.0539
0.10	0.1161	0.1162	0.1162	0.1162	0.1162	0.1162	0.1162	0.1162	0.1162	0.1162	0.1162	0.1162
0.15	0.1878	0.1878	0.1878	0.1878	0.1878	0.1878	0.1878	0.1878	0.1878	0.1878	0.1878	0.1878
0.20	0.2700	0.2700	0.2701	0.2701	0.2703	0.2703	0.2703	0.2704	0.2704	0.2704	0.2704	0.2704
0.25	0.3640	0.3640	0.3641	0.3641	0.3642	0.3644	0.3644	0.3646	0.3646	0.3646	0.3646	0.3647
0.30	0.4711	0.4713	0.4714	0.4714	0.4719	0.4719	0.4720	0.4721	0.4721	0.4722	0.4722	0.4723
0.35	0.5930	0.5932	0.5934	0.5934	0.5939	0.5941	0.5943	0.5944	0.5945	0.5945	0.5946	0.5947
0.40	0.7312	0.7315	0.7317	0.7317	0.7320	0.7320	0.7321	0.7322	0.7323	0.7324	0.7324	0.7325
0.45	0.8878	0.8882	0.8886	0.8886	0.8890	0.8891	0.8892	0.8893	0.8894	0.8894	0.8895	0.8895
0.50	1.0648	1.0654	1.0658	1.0658	1.0662	1.0679	1.0684	1.0687	1.0689	1.0691	1.0692	1.0696
0.55	1.2645	1.2653	1.2659	1.2659	1.2664	1.2687	1.2694	1.2698	1.2700	1.2703	1.2705	1.2709
0.60	1.4894	1.4906	1.4913	1.4913	1.4921	1.4950	1.4960	1.4965	1.4968	1.4972	1.4974	1.4980
0.65	1.7429	1.7442	1.7453	1.7453	1.7461	1.7499	1.7512	1.7518	1.7522	1.7527	1.7530	1.7538
0.70	2.0276	2.0293	2.0306	2.0306	2.0317	2.0366	2.0382	2.0390	2.0395	2.0401	2.0405	2.0414
0.75	2.3471	2.3493	2.3510	2.3510	2.3523	2.3585	2.3606	2.3616	2.3622	2.3630	2.3635	2.3647
0.80	2.7054	2.7082	2.7103	2.7103	2.7120	2.7197	2.7223	2.7236	2.7244	2.7254	2.7259	2.7275
0.85	3.1048	3.1102	3.1128	3.1128	3.1150	3.1246	3.1278	3.1294	3.1304	3.1317	3.1324	3.1343
0.90	3.5561	3.5603	3.5639	3.5639	3.5662	3.5781	3.5820	3.5840	3.5852	3.5868	3.5876	3.5900
0.95	4.0584	4.0636	4.0676	4.0676	4.0708	4.0854	4.0903	4.0928	4.0943	4.0962	4.0972	4.1002
1.00	4.6198	4.6261	4.6310	4.6310	4.6349	4.6527	4.6587	4.6617	4.6636	4.6660	4.6672	4.6708
1.05	5.2466	5.2542	5.2602	5.2602	5.2650	5.2866	5.2939	5.2976	5.2998	5.3027	5.3041	5.3085
1.10	5.9459	5.9551	5.9624	5.9624	5.9681	5.9943	6.0031	6.0075	6.0102	6.0137	6.0155	6.0208
1.15	6.7256	6.7367	6.7454	6.7454	6.7524	6.7840	6.7946	6.7999	6.8031	6.8074	6.8095	6.8160
1.20	7.5946	7.6079	7.6184	7.6184	7.6267	7.6647	7.6774	7.6838	7.6877	7.6928	7.6953	7.7031
1.25	8.5624	8.5784	8.5903	8.5903	8.6008	8.6462	8.6615	8.6691	8.6737	8.6798	8.6829	8.6922
1.30	9.6397	9.6587	9.6736	9.6736	9.6855	9.7396	9.7578	9.7669	9.7724	9.7797	9.7834	9.7944
1.35	10.8384	10.8610	10.8787	10.8787	10.8929	10.9572	10.9788	10.9896	10.9962	11.0049	11.0092	11.0223
1.40	12.1714	12.1982	12.2191	12.2191	12.2359	12.3121	12.3378	12.3506	12.3584	12.3687	12.3739	12.3894
1.45	13.6532	13.6848	13.7096	13.7096	13.7294	13.8196	13.8499	13.8651	13.8749	13.8865	13.8926	13.9110
1.50	15.2996	15.3370	15.3661	15.3661	15.3895	15.4959	15.5317	15.5497	15.5605	15.5749	15.5821	15.6038
1.55	17.1285	17.1724	17.2067	17.2067	17.2342	17.3594	17.4015	17.4227	17.4354	17.4524	17.4609	17.4865
1.60	19.1590	19.2105	19.2508	19.2508	19.2831	19.4301	19.4796	19.5045	19.5195	19.5394	19.5494	19.5795
1.65	21.4127	21.4731	21.5203	21.5203	21.5582	21.7305	21.7885	21.8177	21.8352	21.8586	21.8704	21.9057
1.70	23.9135	23.9840	24.0392	24.0392	24.0835	24.2950	24.3530	24.3871	24.4077	24.4351	24.4488	24.4902
1.75	26.6872	26.7695	26.8339	26.8339	26.8857	27.1211	27.2005	27.2404	27.2644	27.2965	27.3125	27.3608
1.80	29.7630	29.8590	29.9340	29.9340	29.9943	30.2689	30.3615	30.4081	30.4360	30.4735	30.4922	30.5486
1.85	33.1728	33.2844	33.3718	33.3718	33.4420	33.7616	33.8696	33.9238	33.9564	34.0000	34.0218	34.0875
1.90	36.9519	37.0814	37.1831	37.1831	37.2647	37.6362	37.7617	37.8248	37.8628	37.9135	37.9389	38.0153
1.95	41.1392	41.2898	41.4074	41.4074	41.5020	41.9334	42.0792	42.1524	42.1965	42.2554	42.2800	42.3738
2.00	45.7777	45.9519	46.0884	46.0884	46.1981	46.6982	46.8673	46.9523	47.0034	47.0717	47.1060	47.2091
2.05	50.9148	51.1164	51.2743	51.2743	51.4013	51.9804	52.1763	52.2747	52.3340	52.4132	52.4529	52.5724
2.10	56.6030	56.8339	57.0184	57.0184	57.1652	57.8350	58.0616	58.1756	58.2442	58.3359	58.3819	58.5202
2.15	62.8999	63.1689	63.3795	63.3795	63.5491	64.3228	64.5848	64.7165	64.7958	64.9018	64.9500	65.1149
2.20	69.8696	70.1797	70.4226	70.4226	70.6182	71.5111	71.8136	71.9657	72.0575	72.1798	72.2411	72.4259
2.25	77.5824	77.9395	78.2195	78.2195	78.4448	79.4741	79.8230	79.9985	80.1041	80.2454	80.3162	80.5294
2.30	86.1160	86.5269	86.8491	86.8491	87.1085	88.2939	88.6958	88.8961	89.0199	89.1827	89.2644	89.5101
2.35	95.5561	96.0285	96.3990	96.3990	96.6972	98.0611	98.5238	98.7567	98.8969	99.0845	99.1785	99.4616
2.40	105.9973	106.5399	106.9655	106.9655	107.3083	108.8762	109.4083	109.6762	109.8375	110.0533	110.1615	110.4872
2.45	117.5443	118.1669	118.6554	118.6554	119.0489	120.8497	121.4611	121.7690	121.9545	122.2025	122.3269	122.7014
2.50	130.3120	131.0259	131.5861	131.5861	132.0374	134.0139	134.8060	135.1596	135.3726	135.6575	135.8004	136.2307
2.55	144.4276	145.2454	145.8873	145.8873	146.4046	148.7742	149.5798	149.9835	150.2299	150.5569	150.7209	151.2148
2.60	160.0312	160.9675	161.7025	161.7025	162.2949	165.0100	165.9334	166.3986	166.6788	167.0539	167.2419	167.8005
2.65	177.2776	178.3485	179.1895	179.1895	179.8674	182.9760	184.0338	184.5668	184.8880	185.3178	185.5333	186.1828
2.70	196.3372	197.5613	198.5228	198.5228	199.2980	202.8547	204.0656	204.6759	205.0437	205.5359	205.7828	206.5267
2.75	217.3982	218.7965	219.8950	219.8950	220.7810	224.8475	226.2327	226.9311	227.3519	227.9152	228.1978	229.0493
2.80	240.6683	242.2644	243.5187	243.5187	244.5305	249.1768	250.7604	251.5589	252.0402	252.6645	253.0077	253.9818
2.85	266.3761	268.1969	269.6281	269.6281	270.7829	276.0883	277.8976	278.8102	279.3602	280.0966	280.4460	281.5796
2.90	294.7742	296.8499	298.4821	298.4821	299.7991	305.8536	307.9195	308.9616	309.5899	310.4310	310.8331	312.1254
2.95	326.1409	328.5059	330.3660	330.3660	331.8673	338.7724	341.1299	342.3193	343.0365	343.9968	344.4787	345.9315
3.00	360.7832	363.4762	365.9948	365.9948	367.3052	375.1758	377.8645	379.2214	380.0396	381.1353	381.6892	383.3435
3.05	399.0394	402.1042	404.5162	404.5162	406.4634	415.4297	418.4945	420.0415	420.9745	422.2240	422.8512	424.7424
3.10	441.2829	444.7689	447.5129	447.5129	449.7290	459.9381	463.4298	465.1927	466.2360	467.6802	468.3951	470.5511
3.15	487.9252	491.8882	495.0086	495.0086	497.5292	509.1473	513.1232	515.1310	516.3422	517.9646	518.7792	521.2358
3.20	539.4200	543.9230	547.4495	547.4495	550.3349	563.5499	568.0749	570.3607	571.7396	573.5870	574.5146	577.3125
3.25	596.2475	601.3815	605.4104	605.4104	608.6663	623.6902	628.8378	631.4387	633.0079	635.1105	636.1662	639.3513
3.30	659.0193	664.8244	669.3990	669.3990	673.0968	690.1694	696.0226	698.9805	700.7655	703.1574	704.3349	707.9825
3.35	728.2833	734.8699	740.0618	740.0618	744.2595	763.6511	770.3035	773.6661	775.6955	778.4153	779.7812	783.9031
3.40	804.7297	812.1996	818.0894	818.0894	822.8525	844.8685	852.4259	856.2469	858.5533	861.6446	863.1972	867.8832
3.45	889.0975	897.3653	904.2440	904.2440	909.6463	934.6310	943.2130	947.5531	950.1791	953.6852	955.4493	960.7743
3.50	982.2010	991.7960	999.3659	999.3659	1005.4906	1033.8327	1043.3740	1048.5017	1051.4767	1055.4653	1057.4689	1063.5177
3.55	1084.9381	1095.8058	1104.3823	1104.3823	1111.3231	1143.4605	1154.5195	1160.1060	1163.4829	1168.0107	1170.2855	1177.1537
3.60	1198.2980	1210.8023	1220.3155	1220.3155	1228.1779	1264.6046	1277.1409	1283.4855	1287.3171	1292.4551	1295.0367	1302.8325
3.65	1323.3716	1337.2968	1348.2929	1348.2929	1357.1959	1398.4485	1412.6819	1419.8771	1424.2230	1430.0513	1432.9800	1441.8253
3.70	1461.3607	1477.1144	1489.5581	1489.5581	1499.6357	1546.3813	1562.4902	1570.6470	1575.5743	1582.1833	1585.5047	1595.5271
3.75	1613.5903	1631.4098	1645.4825	1645.4825	1656.8852	1709.8105	1728.0612	1737.3049	1742.8895	1750.3811	1754.1484	1765.5213
3.80	1781.5201	1801.6601	1817.5782	1817.5782	1830.4759	1890.3766	1911.0466	1921.5183	1927.8458	1936.3349	1940.6020	1953.4947
3.85	1966.7593</											