

THE MOTION OF AN ELECTRON IN THE HARTREE FIELD OF A HYDROGEN ATOM

S. CHANDRASEKHAR AND FRANCES HERMAN BREEN

Yerkes Observatory

Received November 21, 1945

ABSTRACT

The radial wave functions χ_0 and χ_1 (of unit amplitude at infinity) of an electron moving in the static field of a hydrogen atom in its ground state and having an angular momentum of respectively 0 and 1 Bohr unit are tabulated for a range of values of the kinetic energy which is of astrophysical interest. Certain auxiliary quantities, such as the phase shifts, are also tabulated.

1. *Introduction.*—The wave functions of an electron in the static field of a hydrogen atom are essential for the solution of several problems of astrophysical interest. Perhaps the most important of these problems is the theoretical evaluation of the continuous absorption coefficient of the negative hydrogen ion.¹ However, the basic physical problem, namely, that of the motion of an electron in the field of a hydrogen atom, is well known in the quantum theory and has been considered particularly in investigations relating to the phenomenon of electron scattering.² In this latter context it has been studied by H. S. W. Massey and C. B. O. Mohr,³ J. McDougall,⁴ and P. M. Morse and W. P. Allis.⁵ From the investigations of these writers it would appear that in an approximation in which exchange is ignored the “best wave function,” Ψ , which is separable in the co-ordinates of the two electrons describing the hydrogen atom, together with an electron moving with a definite velocity at infinity, is expressible in the form

$$\Psi(\mathbf{r}_1, \mathbf{r}_2) = \frac{1}{\sqrt{\pi}} e^{-r_1} \phi(\mathbf{r}_2; k), \quad (1)$$

where, adopting Hartree’s atomic units, $e^{-r_1}/\sqrt{\pi}$ represents the wave function of the hydrogen atom in its ground state and $\phi(\mathbf{r}; k)$ is the wave function of an electron having a momentum k , in the Hartree field

$$-\left(1 + \frac{1}{r}\right)e^{-2r} \quad (2)$$

of the hydrogen atom; $\phi(\mathbf{r}; k)$ therefore satisfies the wave equation

$$\nabla^2 \phi + \left[k^2 + 2 \left(1 + \frac{1}{r} \right) e^{-2r} \right] \phi = 0. \quad (3)$$

¹ Cf. S. Chandrasekhar, *Ap. J.*, **102**, 395, 1945, where the integrations tabulated in this paper have already been used to compute the absorption cross-sections of H^- arising from the bound-free transitions. Similar calculations for the free-free transitions will be found in a forthcoming paper.

² Cf. N. F. Mott and H. S. W. Massey, *The Theory of Atomic Collisions*, Oxford University Press, 1933.

³ *Proc. R. Soc., A*, **136**, 289, 1932.

⁴ *Proc. R. Soc., A*, **136**, 549, 1932.

⁵ *Phys. Rev.*, **44**, 269, 1933.

Expanding ϕ in zonal harmonics in the form

$$\phi = \sum_{l=0}^{\infty} r \chi_l P_l(\cos \vartheta) \quad (4)$$

the radial functions χ_l satisfy the equation

$$\frac{d^2 \chi_l}{d r^2} + \left[k^2 - \frac{l(l+1)}{r^2} + 2 \left(1 + \frac{1}{r} \right) e^{-2r} \right] \chi_l = 0. \quad (5)$$

For the purposes of the evaluation of the absorption cross-sections radial functions are required which tend to pure sinusoidal waves of unit amplitude at infinity. More particularly, solutions are required whose behavior at infinity is of the form

$$\chi_l \rightarrow \sin(kr - \frac{1}{2}l\pi + \delta_l) \quad (r \rightarrow \infty), \quad (6)$$

where the δ_l 's are the so-called "phase shifts." It may be recalled in this connection that, according to the theory of Faxén and Holtmark,⁶ the total elastic cross-section Q of the atom for electrons with momentum k is given by

$$Q = \frac{4\pi}{k^2} \sum_{l=0}^{\infty} (2l+1) \sin^2 \delta_l \quad (7)$$

which accounts for the theoretical importance of the phase shifts.

For most purposes, however, the s- and the p-waves χ_0 and χ_1 are the most important; and we shall accordingly provide in this paper tables of these solutions for a range of values of k^2 which is of astrophysical interest.

2. *The s-waves* χ_0 .—The s-radial wave functions χ_0 satisfy the equation

$$\frac{d^2 \chi_0}{d r^2} + \left[k^2 + 2 \left(1 + \frac{1}{r} \right) e^{-2r} \right] \chi_0 = 0, \quad (8)$$

and solutions of this equation are required whose behavior at infinity is

$$\chi_0(r; k) \rightarrow \sin(kr + \delta_0) \quad (r \rightarrow \infty). \quad (9)$$

Such solutions can be found in the following manner:

There exists a solution X_0 of equation (8) whose behavior at the origin is given by

$$X_0(r; k^2) = r - r^2 + \frac{1}{6}(4 - k^2)r^3 - \frac{1}{8}(5 - 2k^2)r^4 + \dots \quad (10)$$

With a series expansion of this form valid for $r \rightarrow 0$ and including thirteen terms it is possible to determine X_0 to a sufficient accuracy for $r < 0.5$. For $r \geq 0.5$ the solution can be continued by any of the standard methods of numerical integration. For $r > 8$

⁶ Cf. *op. cit.*, p. 24.

the term in e^{-2r} in equation (8) is entirely negligible. The solution must, accordingly, be of the form

$$X_0 = A_0 \sin(kr + \delta_0) \quad (r > 8), \quad (11)$$

where A_0 and δ_0 are certain determinate constants.

The phase shift δ_0 can be found from the formula (readily established)

$$\tan \delta_0 = \frac{X_0(r_1) \sin kr_2 - X_0(r_2) \sin kr_1}{-X_0(r_1) \cos kr_2 + X_0(r_2) \cos kr_1} \quad (r_1, r_2 > 8). \quad (12)$$

Once δ_0 has been determined from values of X_0 for two different values of $r > 8$, A_0 immediately follows, and the s-wave χ_0 is given by

$$\chi_0 = \frac{1}{A_0} X_0. \quad (13)$$

In this manner the radial functions χ_0 have been found for thirty different values of k^2 in the range $1.75 \geq k^2 \geq 0.015$. The integrations were carried out keeping seven significant figures; and the final solutions, rounded to five decimals, are given in Table 5.

In Table 1 we have collected the values of the phase shifts δ_0 . It will be seen that, even for $k^2 = 0.015$, the phase shift is quite large.

TABLE 1
THE PHASE SHIFT δ_0

k^2	δ_0	k^2	δ_0	k^2	δ_0
1.75.....	0.82323	0.20.....	1.05361	0.040.....	0.97313
1.50.....	0.84675	.175.....	1.05652	.035.....	.95215
1.25.....	0.87379	.150.....	1.05796	.030.....	.93196
1.00.....	0.90567	.125.....	1.05673	.025.....	.90206
0.90.....	0.91995	.100.....	1.05041	.020.....	.86322
0.80.....	0.93563	.090.....	1.04582	.015.....	.80769
0.70.....	0.95270	.080.....	1.03919	.010.....	.730
0.60.....	0.97098	.070.....	1.03010	.005.....	.574
0.50.....	0.99092	.060.....	1.01736	.0025.....	.434
0.45.....	1.00145	.055.....	1.00891	0.0010.....	0.288
0.35.....	1.02336	.050.....	0.99932		
0.25.....	1.04479	0.045.....	0.98736		

For $k^2 < 0.015$ the solutions can be found by a "perturbation" method. For, writing $X_0(r; k^2)$ in the form

$$X_0(r; k^2) = X_0(r; 0) - k^2 Y_0(r) + O(k^4), \quad (14)$$

it can readily be shown that

$$Y_0(r) = X_0(r; 0) \int_0^r \frac{d\xi}{X_0^2(\xi; 0)} \int_0^\xi d\eta X_0^2(\eta; 0). \quad (15)$$

In Table 2 we have tabulated the functions $X_0(r; 0)$ and $Y_0(r)$. Direct comparison with the integration for $k^2 = 0.015$ shows that solution (14) agrees with the results of the exact integration for $r < 6.0$ to within one part in five hundred. It would accordingly

appear that for $k^2 < 0.015$ equation (14) and our tabulation of the functions $X_0(r; 0)$ and $Y_0(r)$ can be used to determine χ_0 to an accuracy of the order of one part in a thousand. The values of the phase shifts for $k^2 \leq 0.010$ given in Table 1 were found from the radial functions determined in this manner.

3. *The p-waves* χ_1 .—The p-radial functions satisfy the equation

$$\frac{d^2 \chi_1}{d r^2} + \left[k^2 - \frac{2}{r^2} + 2 \left(1 + \frac{1}{r} \right) e^{-2r} \right] \chi_1 = 0, \quad (16)$$

TABLE 2
THE FUNCTIONS $X_0(r; 0)$ AND $Y_0(r)$

r	$X_0(r; 0)$	$Y_0(r)$	r	$X_0(r; 0)$	$Y_0(r)$
0.....	0	0	3.1.....	0.59768	1.67711
0.1.....	0.09064	0.00016	3.2.....	.60259	1.81160
0.2.....	.16490	0.00117	3.3.....	.60748	1.95204
0.3.....	.22585	0.00373	3.4.....	.61235	2.09848
0.4.....	.27603	0.00837	3.5.....	.61720	2.25099
0.5.....	.31748	0.01549	3.6.....	.62203	2.40961
0.6.....	.35191	0.02544	3.7.....	.62686	2.57441
0.7.....	.38066	0.03849	3.8.....	.63167	2.74544
0.8.....	.40483	0.05489	3.9.....	.63648	2.92275
0.9.....	.42531	0.07484	4.0.....	.64127	3.10639
1.0.....	.44281	0.09852	4.1.....	.64607	3.29641
1.1.....	.45790	0.12609	4.2.....	.65086	3.49288
1.2.....	.47105	0.15771	4.3.....	.65564	3.69584
1.3.....	.48263	0.19351	4.4.....	.66042	3.90534
1.4.....	.49293	0.23362	4.5.....	.66520	4.12142
1.5.....	.50220	0.27818	4.6.....	.66998	4.34415
1.6.....	.51064	0.32730	4.7.....	.67476	4.57357
1.7.....	.51839	0.38109	4.8.....	.67953	4.80972
1.8.....	.52559	0.43967	4.9.....	.68431	5.05267
1.9.....	.53235	0.50312	5.0.....	.68908	5.30244
2.0.....	.53874	0.57155	5.1.....	.69385	5.55911
2.1.....	.54483	0.64506	5.2.....	.69862	5.82270
2.2.....	.55068	0.72372	5.3.....	.70339	6.09327
2.3.....	.55634	0.80764	5.4.....	.70816	6.37088
2.4.....	.56183	0.89689	5.5.....	.71293	6.65556
2.5.....	.56719	0.99154	5.6.....	.71770	6.94738
2.6.....	.57245	1.09168	5.7.....	.72247	7.24637
2.7.....	.57761	1.19738	5.8.....	.72724	7.55258
2.8.....	.58271	1.30870	5.9.....	.73201	7.86608
2.9.....	.58774	1.42572	6.0.....	0.73678	8.18689
3.0.....	0.59273	1.54850			

and solutions of this equation are required whose behavior at infinity is

$$\chi_1(r; k) \rightarrow -\cos(kr + \delta_1) \quad (r \rightarrow \infty). \quad (17)$$

Such solutions can be found in the following manner:

There exists a solution X_1 of equation (13) whose behavior at the origin is given by

$$X_1(r; k^2) = r^2 - \frac{1}{2} r^3 + \frac{1}{10} (3 - k^2) r^4 - \frac{1}{180} (16 - 7k^2) r^5 + \dots \quad (18)$$

Again with a series expansion of this form including thirteen terms it is possible to find X_1 to a sufficient accuracy for $r < 0.5$; the solution can be continued beyond this point by numerical methods. For $r > 8$ the term in e^{-2r} in equation (16) can be ignored, and the solution must accordingly be of the form

$$X_1 = A_1 \left[\frac{\sin(kr + \delta_1)}{kr} - \cos(kr + \delta_1) \right] \quad (r > 8). \quad (19)$$

The phase shift δ_1 can be determined from the formula (readily established)

$$\tan \delta_1 = \frac{r_1 X_1(r_1) (1+k^2 r_2^2)^{\frac{1}{2}} \sin(kr_2 - q_2) - r_2 X_1(r_2) (1+k^2 r_1^2)^{\frac{1}{2}} \sin(kr_1 - q_1)}{r_2 X_1(r_2) (1+k^2 r_1^2)^{\frac{1}{2}} \cos(kr_1 - q_1) - r_1 X_1(r_1) (1+k^2 r_2^2)^{\frac{1}{2}} \cos(kr_2 - q_2)}, \quad (20)$$

where

$$q_1 = \tan^{-1} k r_1 \quad \text{and} \quad q_2 = \tan^{-1} k r_2. \quad (21)$$

Once δ_1 has been determined according to equation (20), using the values of X_1 for two different values of $r > 8.0$, A_1 directly follows, and the p-wave χ_1 becomes determinate. In this manner the radial functions χ_1 have been found for twenty-nine different values of k^2 in the range $1.75 \geq k^2 \geq 0.015$. The integrations have been carried out to the same accuracy as the s-waves, and the final solutions (also rounded to five decimals) are given in Table 6.

In Table 3 we have collected the values of the phase shifts δ_1 .

TABLE 3
THE PHASE SHIFT δ_1

k^2	δ_1	k^2	δ_1	k^2	δ_1
1.75.....	0.158696	0.25.....	0.026045	0.055.....	0.003291
1.50.....	.148549	.20.....	.019580	.050.....	.002870
1.25.....	.131742	.175.....	.016462	.045.....	.002464
1.00.....	.111510	.150.....	.013398	.040.....	.002075
0.80.....	.092438	.125.....	.010456	.035.....	.001710
0.70.....	.081824	.100.....	.007689	.030.....	.001363
0.60.....	.070441	.090.....	.006632	.025.....	.001042
0.50.....	.058380	.080.....	.005623	.020.....	.000739
0.45.....	.052097	.070.....	.004644	0.015.....	0.000489
0.35.....	0.039178	0.060.....	0.003732		

As in the case of the s-waves, for $k^2 < 0.015$ the solutions for the p-waves can be found to an accuracy of about one part in a thousand from the formula

$$X_1(r; k^2) = X_1(r; 0) - k^2 Y_1(r), \quad (22)$$

where

$$Y_1(r) = X_1(r; 0) \int_0^r \frac{d\xi}{X_1^2(\xi; 0)} \int_0^\xi d\eta X_1^2(\eta; 0). \quad (23)$$

Equation (22) agrees with the results of the exact integration for $k^2 = 0.015$ to within one part in a thousand for $r \leq 6$. The functions $X_1(r; 0)$ and $Y_1(r)$ are tabulated in Table 4.

4. *Concluding remarks.*—As stated in the Introduction, the s- and the p-waves tabulated in this paper have been used for the evaluation of the continuous absorption coefficient of H^- . It should, however, be admitted that, while this represents an improvement over earlier work, the importance of exchange, particularly for the slow s-electrons, may lead to further changes in the cross-sections for the free-free transitions. We hope to return to these and related matters in the near future.

TABLE 4
THE FUNCTIONS $X_1(r; 0)$ AND $Y_1(r)$

r	$X_1(r; 0)$	$Y_1(r)$	r	$X_1(r; 0)$	$Y_1(r)$
0	0	0	3.1	5.83783	5.95478
0.1	0.00953	0.00001	3.2	6.20841	6.73891
0.2	0.03645	0.00015	3.3	6.59083	7.59800
0.3	0.07871	0.00073	3.4	6.98513	8.53669
0.4	0.13475	0.00223	3.5	7.39132	9.55977
0.5	0.20341	0.00529	3.6	7.80939	10.67215
0.6	0.28389	0.01070	3.7	8.23937	11.8789
0.7	0.37559	0.01940	3.8	8.68126	13.1852
0.8	0.47813	0.03241	3.9	9.13506	14.5965
0.9	0.59128	0.05094	4.0	9.60078	16.1182
1.0	0.71491	0.07630	4.1	10.07842	17.7558
1.1	0.84898	0.10992	4.2	10.5680	19.5153
1.2	0.99349	0.15340	4.3	11.0695	21.4025
1.3	1.14849	0.20845	4.4	11.5829	23.4235
1.4	1.31407	0.27691	4.5	12.1082	25.5844
1.5	1.49032	0.36077	4.6	12.6454	27.8916
1.6	1.67734	0.46216	4.7	13.1946	30.3516
1.7	1.87525	0.58333	4.8	13.7557	32.9709
1.8	2.08414	0.72668	4.9	14.3287	35.7564
1.9	2.30413	0.89475	5.0	14.9137	38.7149
2.0	2.53530	1.09022	5.1	15.5105	41.8534
2.1	2.77777	1.31591	5.2	16.1193	45.1793
2.2	3.03159	1.57477	5.3	16.7399	48.6997
2.3	3.29687	1.86990	5.4	17.3725	52.4222
2.4	3.57365	2.20455	5.5	18.0170	56.3544
2.5	3.86200	2.58208	5.6	18.6734	60.5039
2.6	4.16199	3.00602	5.7	19.3417	64.8788
2.7	4.47365	3.48002	5.8	20.0218	69.4871
2.8	4.79704	4.00789	5.9	20.7139	74.3368
2.9	5.13217	4.59357	6.0	21.4179	79.4364
3.0	5.47910	5.24112			

TABLE 5
 THE RADIAL S-WAVE FUNCTIONS χ_0 OF AN ELECTRON
 IN THE HARTREE FIELD OF A HYDROGEN ATOM

r	$k^2 = 1.75$	$k^2 = 1.50$	$k^2 = 1.25$	$k^2 = 1.00$	$k^2 = 0.90$	$k^2 = 0.80$
0.	0	0	0	0	0	0
0.1.	+0.26172	+0.25343	+0.24454	+0.23491	+0.23085	+0.22655
0.2.	+0.47166	+0.45734	+0.44191	+0.42508	+0.41795	+0.41039
0.3.	+0.63534	+0.61754	+0.59812	+0.57672	+0.56758	+0.55785
0.4.	+0.75764	+0.73905	+0.71835	+0.69509	+0.68504	+0.67424
0.5.	+0.84281	+0.82617	+0.80695	+0.78458	+0.77472	+0.76397
0.6.	+0.89459	+0.88262	+0.86760	+0.84886	+0.84028	+0.83067
0.7.	+0.91632	+0.91162	+0.90344	+0.89098	+0.88473	+0.87733
0.8.	+0.91102	+0.91601	+0.91713	+0.91347	+0.91059	+0.90643
0.9.	+0.88149	+0.89831	+0.91101	+0.91851	+0.91995	+0.92002
1.0.	+0.83037	+0.86086	+0.88712	+0.90794	+0.91460	+0.91980
1.1.	+0.76022	+0.80582	+0.84733	+0.88335	+0.89604	+0.90723
1.2.	+0.67355	+0.73528	+0.79335	+0.84618	+0.86562	+0.88355
1.3.	+0.57286	+0.65126	+0.72681	+0.79773	+0.82452	+0.84985
1.4.	+0.46064	+0.55577	+0.64927	+0.73920	+0.77383	+0.80712
1.5.	+0.33939	+0.45077	+0.56226	+0.67174	+0.71456	+0.75624
1.6.	+0.21165	+0.33827	+0.46729	+0.59644	+0.64766	+0.69805
1.7.	+0.07991	+0.22024	+0.36586	+0.51438	+0.57408	+0.63335
1.8.	-0.05330	+0.09868	+0.25947	+0.42663	+0.49472	+0.56291
1.9.	-0.18555	-0.02445	+0.14961	+0.33426	+0.41049	+0.48749
2.0.	-0.31443	-0.14720	+0.03778	+0.23831	+0.32229	+0.40784
2.1.	-0.43764	-0.26767	-0.07454	+0.13985	+0.23100	+0.32469
2.2.	-0.55302	-0.38401	-0.18590	+0.03992	+0.13754	+0.23881
2.3.	-0.65853	-0.49446	-0.29488	-0.06042	+0.04279	+0.15094
2.4.	-0.75235	-0.59735	-0.40009	-0.16014	-0.05237	+0.06181
2.5.	-0.83284	-0.69117	-0.50021	-0.25823	-0.14704	-0.02783
2.6.	-0.89862	-0.77449	-0.59399	-0.35369	-0.24036	-0.11724
2.7.	-0.94857	-0.84610	-0.68026	-0.44556	-0.33148	-0.20569
2.8.	-0.98182	-0.90493	-0.75795	-0.53292	-0.41957	-0.29248
2.9.	-0.99781	-0.95010	-0.82610	-0.61490	-0.50386	-0.37689
3.0.	-0.99629	-0.98097	-0.88387	-0.69069	-0.58357	-0.45827
3.1.	-0.97729	-0.99708	-0.93054	-0.75953	-0.65799	-0.53595
3.2.	-0.94116	-0.99819	-0.96554	-0.82074	-0.72646	-0.60931
3.3.	-0.88854	-0.98430	-0.98844	-0.87372	-0.78836	-0.67778
3.4.	-0.82037	-0.95564	-0.99896	-0.91793	-0.84315	-0.74081
3.5.	-0.73783	-0.91263	-0.99698	-0.95294	-0.89033	-0.79789
3.6.	-0.64239	-0.85592	-0.98253	-0.97841	-0.92948	-0.84857
3.7.	-0.53570	-0.78638	-0.95579	-0.99408	-0.96026	-0.89246
3.8.	-0.41965	-0.70504	-0.91710	-0.99980	-0.98239	-0.92919
3.9.	-0.29626	-0.61313	-0.86694	-0.99552	-0.99567	-0.95849
4.0.	-0.16769	-0.51203	-0.80595	-0.98128	-0.99998	-0.98011
4.1.	-0.03618	-0.40326	-0.73489	-0.95722	-0.99530	-0.99389
4.2.	+0.09595	-0.28844	-0.65465	-0.92360	-0.98165	-0.99972
4.3.	+0.22641	-0.16930	-0.56622	-0.88074	-0.95917	-0.99754
4.4.	+0.35291	-0.04762	-0.47073	-0.82908	-0.92807	-0.98739
4.5.	+0.47324	+0.07477	-0.36935	-0.76913	-0.88861	-0.96934
4.6.	+0.58530	+0.19605	-0.26336	-0.70149	-0.84116	-0.94354
4.7.	+0.68714	+0.31438	-0.15408	-0.62685	-0.78614	-0.91020
4.8.	+0.77696	+0.42801	-0.04287	-0.54594	-0.72406	-0.86957
4.9.	+0.85321	+0.53522	+0.06887	-0.45957	-0.65546	-0.82199
5.0.	+0.91455	+0.63441	+0.17975	-0.36861	-0.58096	-0.76784

TABLE 5—Continued

r	$k^2 = 1.75$	$k^2 = 1.50$	$k^2 = 1.25$	$k^2 = 1.00$	$k^2 = 0.90$	$k^2 = 0.80$
5.1.....	+0.95990	+0.72409	+0.28838	-0.27397	-0.50124	-0.70755
5.2.....	+0.98848	+0.80293	+0.39342	-0.17659	-0.41701	-0.64160
5.3.....	+0.99979	+0.86974	+0.49354	-0.07744	-0.32903	-0.57052
5.4.....	+0.99363	+0.92352	+0.58750	+0.02248	-0.23810	-0.49488
5.5.....	+0.97011	+0.96346	+0.67413	+0.12218	-0.14502	-0.41528
5.6.....	+0.92963	+0.98896	+0.75234	+0.22065	-0.05064	-0.33236
5.7.....	+0.87291	+0.99966	+0.82115	+0.31692	+0.04420	-0.24679
5.8.....	+0.80093	+0.99537	+0.87971	+0.41002	+0.13864	-0.15923
5.9.....	+0.71496	+0.97617	+0.92728	+0.49903	+0.23183	-0.07041
6.0.....	+0.61649	+0.94235	+0.96327	+0.58305	+0.32294	+0.01898
6.1.....	+0.50725	+0.89441	+0.98724	+0.66124	+0.41114	+0.10821
6.2.....	+0.38915	+0.83308	+0.99888	+0.73283	+0.49565	+0.19658
6.3.....	+0.26424	+0.75926	+0.99804	+0.79709	+0.57569	+0.28338
6.4.....	+0.13472	+0.67406	+0.98474	+0.85339	+0.65056	+0.36791
6.5.....	+0.00284	+0.57877	+0.95915	+0.90116	+0.71958	+0.44950
6.6.....	-0.12909	+0.47481	+0.92158	+0.93993	+0.78212	+0.52750
6.7.....	-0.25876	+0.36373	+0.87250	+0.96931	+0.83763	+0.60128
6.8.....	-0.38390	+0.24721	+0.81252	+0.98900	+0.88561	+0.67025
6.9.....	-0.50235	+0.12698	+0.74240	+0.99882	+0.92563	+0.73386
7.0.....	-0.61201	+0.00484	+0.66301	+0.99865	+0.95732	+0.79161
7.1.....	-0.71098	-0.11736	+0.57535	+0.98850	+0.98040	+0.84302
7.2.....	-0.79752	-0.23781	+0.48049	+0.96848	+0.99466	+0.88770
7.3.....	-0.87013	-0.35470	+0.37964	+0.93878	+0.99998	+0.92528
7.4.....	-0.92753	-0.46627	+0.27405	+0.89970	+0.99630	+0.95546
7.5.....	-0.96872	-0.57085	+0.16503	+0.85163	+0.98366	+0.97800
7.6.....	-0.99299	-0.66688	+0.05396	+0.79505	+0.96218	+0.99273
7.7.....	-0.99991	-0.75292	-0.05779	+0.73053	+0.93204	+0.99952
7.8.....	-0.98935	-0.82768	-0.16882	+0.65871	+0.89352	+0.99831
7.9.....	-0.96151	-0.89004	-0.27774	+0.58030	+0.84696	+0.98913
8.0.....	-0.91686	-0.93907	-0.38319	+0.49610	+0.79279	+0.97203
8.1.....	-0.85620	-0.97403	-0.48385	+0.40694	+0.73149	+0.94717
8.2.....	-0.78057	-0.99439	-0.57847	+0.31371	+0.66361	+0.91473
8.3.....	-0.69130	-0.99986	-0.66586	+0.21735	+0.58976	+0.87499
8.4.....	-0.58995	-0.99035	-0.74495	+0.11882	+0.51061	+0.82824
8.5.....	-0.47829	-0.96600	-0.81473	+0.01910	+0.42686	+0.77487
8.6.....	-0.35828	-0.92718	-0.87433	-0.08081	+0.33928	+0.71531
8.7.....	-0.23200	-0.87447	-0.92302	-0.17991	+0.24865	+0.65004
8.8.....	-0.10166	-0.80865	-0.96018	-0.27722	+0.15578	+0.57956
8.9.....	+0.03044	-0.73073	-0.98535	-0.37175	+0.06151	+0.50445
9.0.....	+0.16202	-0.64185	-0.99822	-0.46257	-0.03332	+0.42531
9.1.....	+0.29076	-0.54336	-0.99862	-0.54877	-0.12784	+0.34277
9.2.....	+0.41443	-0.43673	-0.98656	-0.62949	-0.22122	+0.25749
9.3.....	+0.53085	-0.32356	-0.96217	-0.70392	-0.31260	+0.17015
9.4.....	+0.63799	-0.20554	-0.92577	-0.77131	-0.40117	+0.08145
9.5.....	+0.73399	-0.08444	-0.87781	-0.83100	-0.48614	-0.00790
9.6.....	+0.81716	+0.03793	-0.81888	-0.88238	-0.56673	-0.09719
9.7.....	+0.88605	+0.15972	-0.74973	-0.92495	-0.64223	-0.18570
9.8.....	+0.93946	+0.27912	-0.67122	-0.95827	-0.71195	-0.27273
9.9.....	+0.97645	+0.39434	-0.58432	-0.98202	-0.77527	-0.35758
10.0.....	+0.99638	+0.50364	-0.49013	-0.99596	-0.83162	-0.43957

TABLE 5—Continued

r	$k^2=0.70$	$k^2=0.60$	$k^2=0.50$	$k^2=0.45$	$k^2=0.35$	$k^2=0.25$
0.	0	0	0	0	0	0
0.1.	+0.22206	+0.21739	+0.21241	+0.20979	+0.20419	+0.19791
0.2.	+0.40248	+0.39423	+0.38540	+0.38075	+0.37079	+0.35958
0.3.	+0.54761	+0.53690	+0.52537	+0.51927	+0.50617	+0.49134
0.4.	+0.66279	+0.65073	+0.63765	+0.63068	+0.61562	+0.59842
0.5.	+0.75242	+0.74012	+0.72661	+0.71935	+0.70350	+0.68511
0.6.	+0.82012	+0.80868	+0.79585	+0.78886	+0.77333	+0.75491
0.7.	+0.86886	+0.85935	+0.84827	+0.84209	+0.82798	+0.81065
0.8.	+0.90107	+0.89454	+0.88627	+0.88141	+0.86978	+0.85462
0.9.	+0.91876	+0.91620	+0.91173	+0.90873	+0.90060	+0.88866
1.0.	+0.92359	+0.92595	+0.92626	+0.92559	+0.92196	+0.91425
1.1.	+0.91693	+0.92511	+0.93113	+0.93326	+0.93509	+0.93259
1.2.	+0.89996	+0.91480	+0.92738	+0.93277	+0.94097	+0.94463
1.3.	+0.87369	+0.89594	+0.91590	+0.92496	+0.94041	+0.95116
1.4.	+0.83899	+0.86934	+0.89743	+0.91055	+0.93408	+0.95280
1.5.	+0.79667	+0.83571	+0.87259	+0.89013	+0.92253	+0.95006
1.6.	+0.74745	+0.79567	+0.84193	+0.86423	+0.90621	+0.94337
1.7.	+0.69200	+0.74980	+0.80594	+0.83329	+0.88551	+0.93306
1.8.	+0.63096	+0.69863	+0.76507	+0.79772	+0.86078	+0.91943
1.9.	+0.56498	+0.64268	+0.71971	+0.75787	+0.83229	+0.90272
2.0.	+0.49465	+0.58243	+0.67027	+0.71410	+0.80033	+0.88313
2.1.	+0.42059	+0.51837	+0.61711	+0.66672	+0.76512	+0.86085
2.2.	+0.34339	+0.45096	+0.56059	+0.61604	+0.72690	+0.83603
2.3.	+0.26367	+0.38069	+0.50106	+0.56237	+0.68587	+0.80882
2.4.	+0.18203	+0.30803	+0.43888	+0.50601	+0.64224	+0.77936
2.5.	+0.09907	+0.23344	+0.37441	+0.44725	+0.59621	+0.74776
2.6.	+0.01540	+0.15741	+0.30800	+0.38639	+0.54798	+0.71416
2.7.	-0.06839	+0.08042	+0.23999	+0.32374	+0.49775	+0.67866
2.8.	-0.15168	+0.00293	+0.17076	+0.25959	+0.44572	+0.64138
2.9.	-0.23390	-0.07458	-0.10066	+0.19425	+0.39208	+0.60243
3.0.	-0.31447	-0.15164	+0.03005	+0.12801	+0.33704	+0.56193
3.1.	-0.39281	-0.22777	-0.04072	+0.06120	+0.28080	+0.51999
3.2.	-0.46838	-0.30253	-0.11128	-0.00590	+0.22356	+0.47671
3.3.	-0.54066	-0.37546	-0.18128	-0.07296	+0.16552	+0.43223
3.4.	-0.60914	-0.44613	-0.25036	-0.13970	+0.10690	+0.38665
3.5.	-0.67333	-0.51411	-0.31819	-0.20580	+0.04791	+0.34009
3.6.	-0.73280	-0.57899	-0.38442	-0.27098	-0.01125	+0.29267
3.7.	-0.78713	-0.64039	-0.44872	-0.33492	-0.07038	+0.24452
3.8.	-0.83594	-0.69793	-0.51077	-0.39736	-0.12925	+0.19575
3.9.	-0.87889	-0.75129	-0.57026	-0.45800	-0.18768	+0.14648
4.0.	-0.91568	-0.80013	-0.62690	-0.51658	-0.24544	+0.09685
4.1.	-0.94606	-0.84416	-0.68040	-0.57282	-0.30235	+0.04698
4.2.	-0.96981	-0.88313	-0.73049	-0.62649	-0.35819	-0.00301
4.3.	-0.98677	-0.91680	-0.77693	-0.67734	-0.41278	-0.05299
4.4.	-0.99682	-0.94496	-0.81948	-0.72513	-0.46592	-0.10284
4.5.	-0.99990	-0.96745	-0.85793	-0.76966	-0.51743	-0.15243
4.6.	-0.99598	-0.98414	-0.89210	-0.81073	-0.56713	-0.20163
4.7.	-0.98508	-0.99492	-0.92180	-0.84815	-0.61484	-0.25034
4.8.	-0.96730	-0.99973	-0.94689	-0.88175	-0.66040	-0.29841
4.9.	-0.94274	-0.99855	-0.96725	-0.91138	-0.70364	-0.34574
5.0.	-0.91159	-0.99138	-0.98277	-0.93691	-0.74442	-0.39221

TABLE 5—Continued

r	$k^2 = 0.70$	$k^2 = 0.60$	$k^2 = 0.50$	$k^2 = 0.45$	$k^2 = 0.35$	$k^2 = 0.25$
5.1.....	-0.87406	-0.97825	-0.99338	-0.95823	-0.78260	-0.43769
5.2.....	-0.83041	-0.95927	-0.99902	-0.97524	-0.81804	-0.48208
5.3.....	-0.78096	-0.93452	-0.99967	-0.98786	-0.85061	-0.52526
5.4.....	-0.72604	-0.90418	-0.99533	-0.99603	-0.88021	-0.56713
5.5.....	-0.66604	-0.86841	-0.98600	-0.99972	-0.90672	-0.60759
5.6.....	-0.60137	-0.82743	-0.97176	-0.99892	-0.93007	-0.64652
5.7.....	-0.53251	-0.78149	-0.95265	-0.99362	-0.95015	-0.68384
5.8.....	-0.45991	-0.70387	-0.92878	-0.98385	-0.96691	-0.71944
5.9.....	-0.38410	-0.67586	-0.90027	-0.96965	-0.98029	-0.75325
6.0.....	-0.30560	-0.61680	-0.86726	-0.95109	-0.99024	-0.78518
6.1.....	-0.22496	-0.55403	-0.82992	-0.92826	-0.99672	-0.81514
6.2.....	-0.14274	-0.48795	-0.78843	-0.90124	-0.99972	-0.84307
6.3.....	-0.05953	-0.41894	-0.74300	-0.87018	-0.99922	-0.86889
6.4.....	+0.02410	-0.34741	-0.69385	-0.83520	-0.99522	-0.89254
6.5.....	+0.10756	-0.27380	-0.64124	-0.79646	-0.98774	-0.91395
6.6.....	+0.19027	-0.19855	-0.58542	-0.75413	-0.97680	-0.93308
6.7.....	+0.27164	-0.12211	-0.52668	-0.70842	-0.96244	-0.94988
6.8.....	+0.35112	-0.04494	-0.46530	-0.65952	-0.94472	-0.96431
6.9.....	+0.42814	+0.03250	-0.40160	-0.60765	-0.92369	-0.97632
7.0.....	+0.50216	+0.10975	-0.33589	-0.55304	-0.89943	-0.98590
7.1.....	+0.57268	+0.18634	-0.26849	-0.49595	-0.87202	-0.99301
7.2.....	+0.63918	+0.26181	-0.19976	-0.43663	-0.84156	-0.99764
7.3.....	+0.70122	+0.33571	-0.13003	-0.37535	-0.80816	-0.99977
7.4.....	+0.75834	+0.40760	-0.05965	-0.31237	-0.77193	-0.99941
7.5.....	+0.81017	+0.47704	+0.01103	-0.24799	-0.73300	-0.99654
7.6.....	+0.85632	+0.54362	+0.08165	-0.18250	-0.69150	-0.99119
7.7.....	+0.89649	+0.60694	+0.15187	-0.11618	-0.64759	-0.98336
7.8.....	+0.93038	+0.66662	+0.22132	-0.04934	-0.60140	-0.97307
7.9.....	+0.95776	+0.72230	+0.28967	+0.01772	-0.55312	-0.96035
8.0.....	+0.97844	+0.77365	+0.35657	+0.08471	-0.50290	-0.94523
8.1.....	+0.99228	+0.82036	+0.42169	+0.15131	-0.45091	-0.92774
8.2.....	+0.99917	+0.86216	+0.48469	+0.21723	-0.39735	-0.90794
8.3.....	+0.99907	+0.89878	+0.54528	+0.28217	-0.34240	-0.88586
8.4.....	+0.99198	+0.93001	+0.60314	+0.34585	-0.28625	-0.86157
8.5.....	+0.97796	+0.95566	+0.65799	+0.40797	-0.22910	-0.83513
8.6.....	+0.95709	+0.97559	+0.70955	+0.46825	-0.17115	-0.80660
8.7.....	+0.92953	+0.98966	+0.75756	+0.52642	-0.11259	-0.77605
8.8.....	+0.89546	+0.99779	+0.80179	+0.58223	-0.05364	-0.74356
8.9.....	+0.85513	+0.99995	+0.84200	+0.63542	+0.00549	-0.70922
9.0.....	+0.80882	+0.99610	+0.87801	+0.68576	+0.06461	-0.67310
9.1.....	+0.75684	+0.98629	+0.90964	+0.73300	+0.12350	-0.63529
9.2.....	+0.69958	+0.97055	+0.93671	+0.77695	+0.18195	-0.59590
9.3.....	+0.63741	+0.94900	+0.95911	+0.81740	+0.23977	-0.55502
9.4.....	+0.57079	+0.92176	+0.97671	+0.85418	+0.29676	-0.51275
9.5.....	+p. 50018	+0.88899	+0.98943	+0.88711	+0.35270	-0.46920
9.6.....	+0.42606	+0.85088	+0.99720	+0.91606	+0.40741	-0.42448
9.7.....	+0.34897	+0.80768	+0.99999	+0.94088	+0.46069	-0.37870
9.8.....	+0.26943	+0.75963	+0.99779	+0.96147	+0.51237	-0.33197
9.9.....	+0.18801	+0.70703	+0.99059	+0.97773	+0.56225	-0.28441
10.0.....	+0.10527	+0.65019	+0.97845	+0.98960	+0.61016	-0.23613

TABLE 5—Continued

r	$k^2 = 0.20$	$k^2 = 0.175$	$k^2 = 0.150$	$k^2 = 0.125$	$k^2 = 0.10$	$k^2 = 0.09$
0.	0	0	0	0	0	0
0.1.	+0.19430	+0.19225	+0.19006	+0.18751	+0.18443	+0.18299
0.2.	+0.35311	+0.34944	+0.34549	+0.34090	+0.33535	+0.33276
0.3.	+0.48271	+0.47782	+0.47253	+0.46636	+0.45888	+0.45537
0.4.	+0.58832	+0.58255	+0.57631	+0.56898	+0.56004	+0.55584
0.5.	+0.67418	+0.66788	+0.66103	+0.65292	+0.64297	+0.63826
0.6.	+0.74375	+0.73724	+0.73011	+0.72158	+0.71100	+0.70596
0.7.	+0.79985	+0.79342	+0.78633	+0.77770	+0.76686	+0.76165
0.8.	+0.84472	+0.83868	+0.83191	+0.82351	+0.81273	+0.80749
0.9.	+0.88021	+0.87482	+0.86866	+0.86077	+0.85038	+0.84524
1.0.	+0.90776	+0.90329	+0.89802	+0.89092	+0.88122	+0.87631
1.1.	+0.92857	+0.92528	+0.92115	+0.91512	+0.90638	+0.90183
1.2.	+0.94358	+0.94172	+0.93898	+0.93429	+0.92279	+0.92270
1.3.	+0.95354	+0.95337	+0.95227	+0.94917	+0.94318	+0.93967
1.4.	+0.95909	+0.96083	+0.96162	+0.96036	+0.95614	+0.95330
1.5.	+0.96071	+0.96460	+0.96752	+0.96834	+0.96614	+0.96409
1.6.	+0.95881	+0.96507	+0.97035	+0.97349	+0.97356	+0.97240
1.7.	+0.95371	+0.96258	+0.97044	+0.97613	+0.97872	+0.97854
1.8.	+0.94569	+0.95737	+0.96804	+0.97652	+0.98185	+0.98276
1.9.	+0.93498	+0.94967	+0.96336	+0.97485	+0.98317	+0.98526
2.0.	+0.92175	+0.93966	+0.95657	+0.97129	+0.98283	+0.98619
2.1.	+0.90617	+0.92748	+0.94782	+0.96598	+0.98096	+0.98570
2.2.	+0.88838	+0.91327	+0.93723	+0.95903	+0.97768	+0.98388
2.3.	+0.86849	+0.89714	+0.92490	+0.95054	+0.97307	+0.98082
2.4.	+0.84661	+0.87917	+0.91091	+0.94059	+0.96720	+0.97659
2.5.	+0.82285	+0.85946	+0.89534	+0.92924	+0.96014	+0.97126
2.6.	+0.79728	+0.83809	+0.87826	+0.91655	+0.95193	+0.96486
2.7.	+0.76999	+0.81512	+0.85972	+0.90258	+0.94263	+0.95746
2.8.	+0.74107	+0.79062	+0.83979	+0.88737	+0.93227	+0.94907
2.9.	+0.71059	+0.76465	+0.81852	+0.87096	+0.92089	+0.93973
3.0.	+0.67863	+0.73729	+0.79595	+0.85339	+0.90850	+0.92946
3.1.	+0.64526	+0.70859	+0.77214	+0.83469	+0.89515	+0.91830
3.2.	+0.61058	+0.67861	+0.74712	+0.81491	+0.88086	+0.90627
3.3.	+0.57464	+0.64741	+0.72096	+0.79407	+0.86564	+0.89338
3.4.	+0.53753	+0.61505	+0.69368	+0.77221	+0.84953	+0.87965
3.5.	+0.49934	+0.58160	+0.66535	+0.74937	+0.83255	+0.86510
3.6.	+0.46013	+0.54712	+0.63600	+0.72557	+0.81471	+0.84975
3.7.	+0.41999	+0.51168	+0.60568	+0.70085	+0.79604	+0.83363
3.8.	+0.37901	+0.47533	+0.57445	+0.67524	+0.77657	+0.81674
3.9.	+0.33726	+0.43814	+0.54235	+0.64878	+0.75631	+0.79910
4.0.	+0.29484	+0.40017	+0.50942	+0.62150	+0.73528	+0.78074
4.1.	+0.25182	+0.36151	+0.47573	+0.59344	+0.71351	+0.76167
4.2.	+0.20830	+0.32221	+0.44132	+0.56463	+0.69102	+0.74190
4.3.	+0.16436	+0.28234	+0.40625	+0.53512	+0.66785	+0.72147
4.4.	+0.12009	+0.24198	+0.37057	+0.50493	+0.64399	+0.70038
4.5.	+0.07558	+0.20119	+0.33433	+0.47411	+0.61949	+0.67866
4.6.	+0.03092	+0.16005	+0.29758	+0.44270	+0.59438	+0.65633
4.7.	-0.01381	+0.11863	+0.26039	+0.41073	+0.56866	+0.63340
4.8.	-0.05850	+0.07700	+0.22281	+0.37824	+0.54237	+0.60990
4.9.	-0.10308	+0.03523	+0.18489	+0.34529	+0.51555	+0.58586
5.0.	-0.14746	-0.00659	+0.14670	+0.31190	+0.48820	+0.56128

TABLE 5—Continued

r	$k^2 = 0.20$	$k^2 = 0.175$	$k^2 = 0.150$	$k^2 = 0.125$	$k^2 = 0.10$	$k^2 = 0.09$
5.1.....	-0.19153	-0.04841	+0.10829	+0.27812	+0.46037	+0.53620
5.2.....	-0.23523	-0.09014	+0.06971	+0.24399	+0.43207	+0.51063
5.3.....	-0.27845	-0.13171	+0.03103	+0.20955	+0.40334	+0.48461
5.4.....	-0.32111	-0.17305	-0.00367	+0.17486	+0.37421	+0.45814
5.5.....	-0.36314	-0.21409	-0.04642	+0.13994	+0.34471	+0.43127
5.6.....	-0.40443	-0.25475	-0.08506	+0.10485	+0.31485	+0.40401
5.7.....	-0.44492	-0.29497	-0.12358	+0.06962	+0.28469	+0.37638
5.8.....	-0.48451	-0.33467	-0.16192	+0.03431	+0.25424	+0.34842
5.9.....	-0.52314	-0.37379	-0.20001	-0.00104	+0.22354	+0.32014
6.0.....	-0.56072	-0.41225	-0.23780	-0.03639	+0.19261	+0.29158
6.1.....	-0.59718	-0.44999	-0.27523	-0.07170	+0.16149	+0.26275
6.2.....	-0.63244	-0.48695	-0.31225	-0.10692	+0.13021	+0.23368
6.3.....	-0.66644	-0.52305	-0.34881	-0.14200	+0.09880	+0.20441
6.4.....	-0.69910	-0.55824	-0.38484	-0.17690	+0.06729	+0.17495
6.5.....	-0.73037	-0.59245	-0.42029	-0.21159	+0.03571	+0.14534
6.6.....	-0.76018	-0.62562	-0.45511	-0.11889	+0.00409	+0.11559
6.7.....	-0.78846	-0.65770	-0.48925	-0.28011	-0.02753	+0.08574
6.8.....	-0.81517	-0.68863	-0.52265	-0.31387	-0.05912	+0.05581
6.9.....	-0.84026	-0.71835	-0.55527	-0.34724	-0.09065	+0.02583
7.0.....	-0.86365	-0.74682	-0.58706	-0.38017	-0.12210	-0.00418
7.1.....	-0.88533	-0.77398	-0.61796	-0.41263	-0.15342	-0.03418
7.2.....	-0.90523	-0.79978	-0.64794	-0.44457	-0.18458	-0.06414
7.3.....	-0.92332	-0.82419	-0.67695	-0.47596	-0.21557	-0.09406
7.4.....	-0.93957	-0.84715	-0.70494	-0.50675	-0.24633	-0.12388
7.5.....	-0.95393	-0.86863	-0.73187	-0.53690	-0.27685	-0.15360
7.6.....	-0.96639	-0.88860	-0.75771	-0.56639	-0.30710	-0.18317
7.7.....	-0.97692	-0.90700	-0.78241	-0.59516	-0.33704	-0.21258
7.8.....	-0.98549	-0.92382	-0.80594	-0.62320	-0.36663	-0.24180
7.9.....	-0.99210	-0.93902	-0.82826	-0.65045	-0.39587	-0.27080
8.0.....	-0.99671	-0.95258	-0.84933	-0.67689	-0.42470	-0.29956
8.1.....	-0.99934	-0.96448	-0.86914	-0.70249	-0.45312	-0.32804
8.2.....	-0.99997	-0.97468	-0.88764	-0.72721	-0.48107	-0.35623
8.3.....	-0.99859	-0.98318	-0.90480	-0.75102	-0.50855	-0.38410
8.4.....	-0.99522	-0.98996	-0.92061	-0.77389	-0.53552	-0.41162
8.5.....	-0.98986	-0.99501	-0.93504	-0.79579	-0.56196	-0.43878
8.6.....	-0.98252	-0.99831	-0.94807	-0.81670	-0.58783	-0.46553
8.7.....	-0.97321	-0.99987	-0.95968	-0.83659	-0.61311	-0.49187
8.8.....	-0.96196	-0.99968	-0.96984	-0.85543	-0.63778	-0.51776
8.9.....	-0.94879	-0.99774	-0.97855	-0.87321	-0.66182	-0.54319
9.0.....	-0.93372	-0.99406	-0.98579	-0.88989	-0.68519	-0.56813
9.1.....	-0.91677	-0.98863	-0.99156	-0.90546	-0.70788	-0.59256
9.2.....	-0.89800	-0.98148	-0.99583	-0.91990	-0.72986	-0.61646
9.3.....	-0.87743	-0.97261	-0.99862	-0.93319	-0.75111	-0.63980
9.4.....	-0.85510	-0.96203	-0.99990	-0.94531	-0.77161	-0.66256
9.5.....	-0.83108	-0.94978	-0.99969	-0.95625	-0.79133	-0.68473
9.6.....	-0.80538	-0.93586	-0.99798	-0.96599	-0.81027	-0.70628
9.7.....	-0.77808	-0.92031	-0.99476	-0.97453	-0.82839	-0.72720
9.8.....	-0.74922	-0.90314	-0.99006	-0.98184	-0.84569	-0.74746
9.9.....	-0.71886	-0.88440	-0.98388	-0.98793	-0.86214	-0.76705
10.0.....	-0.68706	-0.86411	-0.97621	-0.99279	-0.87772	-0.78595

TABLE 5—Continued

r	$k^2 = 0.08$	$k^2 = 0.07$	$k^2 = 0.06$	$k^2 = 0.055$	$k^2 = 0.050$	$k^2 = 0.045$
0.	0	0	0	0	0	0
0.1.	+0.18134	+0.17931	+0.17699	+0.17561	+0.17396	+0.17215
0.2.	+0.32977	+0.32610	+0.32190	+0.31940	+0.31641	+0.31312
0.3.	+0.45132	+0.44634	+0.44064	+0.43723	+0.43316	+0.42867
0.4.	+0.55097	+0.54497	+0.53808	+0.53395	+0.52902	+0.52358
0.5.	+0.63279	+0.62601	+0.61821	+0.61352	+0.60792	+0.60172
0.6.	+0.70008	+0.69274	+0.68427	+0.67917	+0.67304	+0.66625
0.7.	+0.75552	+0.74782	+0.73889	+0.73348	+0.72697	+0.71975
0.8.	+0.80127	+0.79338	+0.78418	+0.77857	+0.77180	+0.76426
0.9.	+0.83907	+0.83115	+0.82185	+0.81614	+0.80920	+0.80146
1.0.	+0.87032	+0.86251	+0.85326	+0.84753	+0.84053	+0.83269
1.1.	+0.89614	+0.88859	+0.87953	+0.87386	+0.86687	+0.85901
1.2.	+0.91744	+0.91027	+0.90153	+0.89599	+0.88910	+0.88130
1.3.	+0.93495	+0.92827	+0.91999	+0.91464	+0.90791	+0.90025
1.4.	+0.94923	+0.94317	+0.93546	+0.93037	+0.92388	+0.91642
1.5.	+0.96077	+0.95544	+0.94842	+0.94364	+0.93744	+0.93026
1.6.	+0.96995	+0.96545	+0.95923	+0.95482	+0.94898	+0.94213
1.7.	+0.97705	+0.97350	+0.96818	+0.96421	+0.95878	+0.95232
1.8.	+0.98234	+0.97983	+0.97553	+0.97204	+0.96709	+0.96107
1.9.	+0.98600	+0.98464	+0.98145	+0.97851	+0.97408	+0.96858
2.0.	+0.98820	+0.98809	+0.98612	+0.98377	+0.97991	+0.97498
2.1.	+0.98906	+0.99030	+0.98965	+0.98795	+0.98472	+0.98040
2.2.	+0.98869	+0.99137	+0.99215	+0.99114	+0.98860	+0.98495
2.3.	+0.98717	+0.99140	+0.99369	+0.99343	+0.99163	+0.98870
2.4.	+0.98458	+0.99044	+0.99436	+0.99489	+0.99387	+0.99172
2.5.	+0.98097	+0.98856	+0.99419	+0.99557	+0.99539	+0.99406
2.6.	+0.97639	+0.98580	+0.99324	+0.99551	+0.99622	+0.99577
2.7.	+0.97088	+0.98220	+0.99153	+0.99475	+0.99640	+0.99687
2.8.	+0.96448	+0.97779	+0.98911	+0.99332	+0.99595	+0.99741
2.9.	+0.95720	+0.97259	+0.98600	+0.99125	+0.99491	+0.99739
3.0.	+0.94908	+0.96664	+0.98222	+0.98855	+0.99329	+0.99685
3.1.	+0.94014	+0.95995	+0.97778	+0.98524	+0.99111	+0.99579
3.2.	+0.93039	+0.95253	+0.97270	+0.98133	+0.98837	+0.99423
3.3.	+0.91986	+0.94440	+0.96700	+0.97685	+0.98510	+0.99217
3.4.	+0.90857	+0.93558	+0.96068	+0.97179	+0.98130	+0.98964
3.5.	+0.89652	+0.92608	+0.95375	+0.96617	+0.97698	+0.98663
3.6.	+0.88373	+0.91591	+0.94623	+0.95999	+0.97215	+0.98315
3.7.	+0.87022	+0.90507	+0.93813	+0.95327	+0.96682	+0.97921
3.8.	+0.85599	+0.89359	+0.92945	+0.94601	+0.96099	+0.97481
3.9.	+0.84108	+0.88148	+0.92019	+0.93822	+0.95467	+0.96997
4.0.	+0.82548	+0.86873	+0.91038	+0.92990	+0.94785	+0.96468
4.1.	+0.80920	+0.85538	+0.90001	+0.92106	+0.94056	+0.95894
4.2.	+0.79228	+0.84141	+0.88909	+0.91171	+0.93279	+0.95277
4.3.	+0.77472	+0.82685	+0.87764	+0.90185	+0.92455	+0.94616
4.4.	+0.75654	+0.81171	+0.86565	+0.89150	+0.91584	+0.93912
4.5.	+0.73775	+0.79600	+0.85314	+0.88064	+0.90667	+0.93166
4.6.	+0.71836	+0.77973	+0.84011	+0.86931	+0.89704	+0.92378
4.7.	+0.69840	+0.76291	+0.82658	+0.85749	+0.88697	+0.91547
4.8.	+0.67788	+0.74556	+0.81256	+0.84520	+0.87644	+0.90676
4.9.	+0.65681	+0.72768	+0.79804	+0.83244	+0.86548	+0.89763
5.0.	+0.63522	+0.70929	+0.78304	+0.81922	+0.85409	+0.88810

TABLE 5—Continued

r	$k^2 = 0.08$	$k^2 = 0.07$	$k^2 = 0.06$	$k^2 = 0.055$	$k^2 = 0.050$	$k^2 = 0.045$
5.1.....	+0.61312	+0.69040	+0.76758	+0.80556	+0.84226	+0.87817
5.2.....	+0.59053	+0.67103	+0.75165	+0.79144	+0.83002	+0.86784
5.3.....	+0.56747	+0.65119	+0.73527	+0.77690	+0.81735	+0.85712
5.4.....	+0.54395	+0.63090	+0.71845	+0.76192	+0.80428	+0.84601
5.5.....	+0.52000	+0.61016	+0.70120	+0.74652	+0.79081	+0.83452
5.6.....	+0.49563	+0.58899	+0.68352	+0.73072	+0.77694	+0.82266
5.7.....	+0.47086	+0.56741	+0.66544	+0.71451	+0.76268	+0.81043
5.8.....	+0.44572	+0.54543	+0.64695	+0.69790	+0.74804	+0.79783
5.9.....	+0.42022	+0.52307	+0.62808	+0.68091	+0.73302	+0.78487
6.0.....	+0.39439	+0.50035	+0.60883	+0.66355	+0.71764	+0.77156
6.1.....	+0.36824	+0.47727	+0.58922	+0.64583	+0.70190	+0.75790
6.2.....	+0.34179	+0.45386	+0.56925	+0.62775	+0.68580	+0.74390
6.3.....	+0.31507	+0.43014	+0.54894	+0.60932	+0.66937	+0.72956
6.4.....	+0.28810	+0.40611	+0.52830	+0.59056	+0.65260	+0.71490
6.5.....	+0.26090	+0.38179	+0.50734	+0.57148	+0.63550	+0.69991
6.6.....	+0.23349	+0.35721	+0.48608	+0.55208	+0.61808	+0.68461
6.7.....	+0.20590	+0.33238	+0.46453	+0.53237	+0.60036	+0.66901
6.8.....	+0.17814	+0.30732	+0.44269	+0.51238	+0.58234	+0.65310
6.9.....	+0.15024	+0.28204	+0.42060	+0.49210	+0.56402	+0.63689
7.0.....	+0.12222	+0.25656	+0.39825	+0.47155	+0.54542	+0.62040
7.1.....	+0.09410	+0.23090	+0.37566	+0.45074	+0.52655	+0.60363
7.2.....	+0.06590	+0.20508	+0.35285	+0.42968	+0.50742	+0.58659
7.3.....	+0.03766	+0.17912	+0.32982	+0.40839	+0.48803	+0.56929
7.4.....	+0.00938	+0.15303	+0.30660	+0.38687	+0.46840	+0.55172
7.5.....	-0.01890	+0.12683	+0.28320	+0.36514	+0.44854	+0.53391
7.6.....	-0.04717	+0.10055	+0.25963	+0.34321	+0.42845	+0.51586
7.7.....	-0.07541	+0.07419	+0.23590	+0.32109	+0.40814	+0.49758
7.8.....	-0.10358	+0.04779	+0.21202	+0.29879	+0.38764	+0.47907
7.9.....	-0.13167	+0.02134	+0.18802	+0.27633	+0.36693	+0.46034
8.0.....	-0.15965	-0.00511	+0.16391	+0.25372	+0.34605	+0.44141
8.1.....	-0.18750	-0.03157	+0.13970	+0.23097	+0.32499	+0.42228
8.2.....	-0.21521	-0.05800	+0.11541	+0.20809	+0.30377	+0.40296
8.3.....	-0.24274	-0.08439	+0.09104	+0.18509	+0.28240	+0.38346
8.4.....	-0.27008	-0.11072	+0.06662	+0.16200	+0.26088	+0.36378
8.5.....	-0.29720	-0.13697	+0.04216	+0.13881	+0.23923	+0.34394
8.6.....	-0.32409	-0.16313	+0.01768	+0.11555	+0.21747	+0.32395
8.7.....	-0.35071	-0.18917	-0.00682	+0.09222	+0.19560	+0.30380
8.8.....	-0.37706	-0.21508	-0.03131	+0.06885	+0.17362	+0.28353
8.9.....	-0.40310	-0.24083	-0.05578	+0.04543	+0.15156	+0.26312
9.0.....	-0.42882	-0.26642	-0.08022	+0.02199	+0.12943	+0.24260
9.1.....	-0.45420	-0.29183	-0.10461	-0.00146	+0.10723	+0.22196
9.2.....	-0.47921	-0.31703	-0.12894	-0.02491	+0.08497	+0.20123
9.3.....	-0.50384	-0.34201	-0.15319	-0.04834	+0.06268	+0.18040
9.4.....	-0.52807	-0.36675	-0.17735	-0.07175	+0.04035	+0.15950
9.5.....	-0.55187	-0.39123	-0.20140	-0.09512	+0.01800	+0.13852
9.6.....	-0.57513	-0.41544	-0.22533	-0.11844	-0.00436	+0.11748
9.7.....	-0.59814	-0.43936	-0.24912	-0.14169	-0.02671	+0.09638
9.8.....	-0.62056	-0.46297	-0.27277	-0.16487	-0.04905	+0.07524
9.9.....	-0.64249	-0.48626	-0.29625	-0.18795	-0.07137	+0.05407
10.0.....	-0.66390	-0.50920	-0.31955	-0.21093	-0.09365	+0.03287

TABLE 5—Continued

r	$k^2 = 0.04$	$k^2 = 0.035$	$k^2 = 0.030$	$k^2 = 0.025$	$k^2 = 0.020$	$k^2 = 0.015$
0.	0	0	0	0	0	0
0.1.	+0.17002	+0.16746	+0.16420	+0.16009	+0.15457	+0.14651
0.2.	+0.30925	+0.30461	+0.29868	+0.29121	+0.28119	+0.26654
0.3.	+0.42340	+0.41707	+0.40896	+0.39876	+0.38505	+0.36500
0.4.	+0.51717	+0.50947	+0.49960	+0.48717	+0.47045	+0.44599
0.5.	+0.59440	+0.58562	+0.57432	+0.56008	+0.54091	+0.51284
0.6.	+0.65823	+0.64858	+0.63614	+0.62044	+0.59928	+0.56824
0.7.	+0.71118	+0.70085	+0.68751	+0.67065	+0.64786	+0.61440
0.8.	+0.75529	+0.74446	+0.73041	+0.71262	+0.68852	+0.65307
0.9.	+0.79221	+0.78101	+0.76643	+0.74791	+0.72276	+0.68570
1.0.	+0.82327	+0.81182	+0.79685	+0.77778	+0.75180	+0.71341
1.1.	+0.84952	+0.83793	+0.82270	+0.80322	+0.77659	+0.73714
1.2.	+0.87182	+0.86019	+0.84481	+0.82506	+0.79794	+0.75763
1.3.	+0.89086	+0.87927	+0.86385	+0.84393	+0.81646	+0.77548
1.4.	+0.90720	+0.89572	+0.88034	+0.86036	+0.83266	+0.79116
1.5.	+0.92127	+0.90999	+0.89473	+0.87478	+0.84696	+0.80507
1.6.	+0.93344	+0.92243	+0.90736	+0.88752	+0.85967	+0.81751
1.7.	+0.94399	+0.93331	+0.91851	+0.89886	+0.87107	+0.82875
1.8.	+0.95316	+0.94287	+0.92841	+0.90902	+0.88136	+0.83899
1.9.	+0.96114	+0.95130	+0.93724	+0.91817	+0.89073	+0.84838
2.0.	+0.96807	+0.95875	+0.94515	+0.92647	+0.89931	+0.85706
2.1.	+0.97409	+0.96533	+0.95225	+0.93402	+0.90721	+0.86514
2.2.	+0.97928	+0.97114	+0.95864	+0.94093	+0.91453	+0.87271
2.3.	+0.98373	+0.97626	+0.96440	+0.94726	+0.92134	+0.87983
2.4.	+0.98749	+0.98077	+0.96959	+0.95309	+0.92770	+0.88656
2.5.	+0.99064	+0.98469	+0.97426	+0.95845	+0.93365	+0.89296
2.6.	+0.99319	+0.98809	+0.97846	+0.96339	+0.93924	+0.89905
2.7.	+0.99520	+0.99099	+0.98222	+0.96795	+0.94450	+0.90487
2.8.	+0.99669	+0.99342	+0.98555	+0.97214	+0.94945	+0.91044
2.9.	+0.99768	+0.99540	+0.98849	+0.97599	+0.95412	+0.91578
3.0.	+0.99819	+0.99695	+0.99106	+0.97951	+0.95851	+0.92091
3.1.	+0.99823	+0.99809	+0.99326	+0.98273	+0.96265	+0.92584
3.2.	+0.99782	+0.99882	+0.99511	+0.98565	+0.96655	+0.93058
3.3.	+0.99697	+0.99916	+0.99662	+0.98828	+0.97021	+0.93514
3.4.	+0.99568	+0.99912	+0.99780	+0.99063	+0.97365	+0.93952
3.5.	+0.99396	+0.99869	+0.99864	+0.99270	+0.97686	+0.94374
3.6.	+0.99183	+0.99794	+0.99917	+0.99450	+0.97985	+0.94780
3.7.	+0.98927	+0.99683	+0.99937	+0.99603	+0.98262	+0.95170
3.8.	+0.98631	+0.99535	+0.99926	+0.99730	+0.98519	+0.95543
3.9.	+0.98294	+0.99351	+0.99884	+0.99830	+0.98754	+0.95902
4.0.	+0.97916	+0.99131	+0.99811	+0.99905	+0.98969	+0.96244
4.1.	+0.97499	+0.98875	+0.99707	+0.99954	+0.99163	+0.96572
4.2.	+0.97042	+0.98585	+0.99572	+0.99977	+0.99337	+0.96885
4.3.	+0.96545	+0.98259	+0.99407	+0.99974	+0.99490	+0.97182
4.4.	+0.96010	+0.97898	+0.99212	+0.99946	+0.99623	+0.97464
4.5.	+0.95435	+0.97503	+0.98986	+0.99893	+0.99735	+0.97732
4.6.	+0.94822	+0.97074	+0.98731	+0.99815	+0.99828	+0.97984
4.7.	+0.94171	+0.96610	+0.98446	+0.99711	+0.99900	+0.98222
4.8.	+0.93483	+0.96112	+0.98131	+0.99582	+0.99951	+0.98444
4.9.	+0.92756	+0.95580	+0.97786	+0.99428	+0.99983	+0.98652
5.0.	+0.91993	+0.95015	+0.97412	+0.99249	+0.99995	+0.98845

TABLE 5—Continued

r	$k^2 = 0.04$	$k^2 = 0.035$	$k^2 = 0.030$	$k^2 = 0.025$	$k^2 = 0.020$	$k^2 = 0.015$
5.1.....	+0.91192	+0.94417	+0.97008	+0.99045	+0.99986	+0.99023
5.2.....	+0.90355	+0.93785	+0.96576	+0.98816	+0.99958	+0.99186
5.3.....	+0.89482	+0.93120	+0.96114	+0.98562	+0.99909	+0.99334
5.4.....	+0.88573	+0.92423	+0.95624	+0.98284	+0.99840	+0.99467
5.5.....	+0.87629	+0.91693	+0.95104	+0.97981	+0.99751	+0.99585
5.6.....	+0.86649	+0.90931	+0.94556	+0.97653	+0.99642	+0.99688
5.7.....	+0.85635	+0.90138	+0.93980	+0.97301	+0.99513	+0.99776
5.8.....	+0.84586	+0.89313	+0.93375	+0.96925	+0.99365	+0.99849
5.9.....	+0.83503	+0.88456	+0.92742	+0.96525	+0.99196	+0.99907
6.0.....	+0.82388	+0.87569	+0.92082	+0.96100	+0.99008	+0.99949
6.1.....	+0.81239	+0.86651	+0.91393	+0.95652	+0.98799	+0.99977
6.2.....	+0.80057	+0.85702	+0.90677	+0.95179	+0.98571	+0.99990
6.3.....	+0.78844	+0.84724	+0.89934	+0.94683	+0.98324	+0.99988
6.4.....	+0.77599	+0.83716	+0.89164	+0.94163	+0.98056	+0.99970
6.5.....	+0.76322	+0.82678	+0.88368	+0.93619	+0.97769	+0.99938
6.6.....	+0.75016	+0.81612	+0.87545	+0.93052	+0.97462	+0.99891
6.7.....	+0.73679	+0.80517	+0.86695	+0.92462	+0.97136	+0.99828
6.8.....	+0.72313	+0.79393	+0.85819	+0.91849	+0.96791	+0.99751
6.9.....	+0.70918	+0.78242	+0.84918	+0.91212	+0.96426	+0.99658
7.0.....	+0.69494	+0.77064	+0.83991	+0.90553	+0.96042	+0.99551
7.1.....	+0.68043	+0.75858	+0.83039	+0.89871	+0.95638	+0.99429
7.2.....	+0.66565	+0.74626	+0.82062	+0.89167	+0.95216	+0.99291
7.3.....	+0.65060	+0.73368	+0.81061	+0.88441	+0.94774	+0.99139
7.4.....	+0.63528	+0.72084	+0.80035	+0.87692	+0.94313	+0.98972
7.5.....	+0.61972	+0.70775	+0.78985	+0.86922	+0.93834	+0.98790
7.6.....	+0.60390	+0.69441	+0.77911	+0.86129	+0.93335	+0.98594
7.7.....	+0.58785	+0.68083	+0.76814	+0.85316	+0.92818	+0.98382
7.8.....	+0.57156	+0.66701	+0.75694	+0.84481	+0.92283	+0.98156
7.9.....	+0.55504	+0.65296	+0.74551	+0.83624	+0.91729	+0.97915
8.0.....	+0.53830	+0.63867	+0.73386	+0.82747	+0.91156	+0.97659
8.1.....	+0.52134	+0.62417	+0.72198	+0.81849	+0.90565	+0.97389
8.2.....	+0.50418	+0.60944	+0.70989	+0.80931	+0.89956	+0.97104
8.3.....	+0.48681	+0.59451	+0.69759	+0.79992	+0.89329	+0.96804
8.4.....	+0.46925	+0.57936	+0.68507	+0.79034	+0.88685	+0.96490
8.5.....	+0.45150	+0.56401	+0.67235	+0.78056	+0.88022	+0.96161
8.6.....	+0.43357	+0.54847	+0.65943	+0.77058	+0.87342	+0.95818
8.7.....	+0.41547	+0.53273	+0.64632	+0.76040	+0.86644	+0.95461
8.8.....	+0.39719	+0.51680	+0.63300	+0.75004	+0.85930	+0.95089
8.9.....	+0.37876	+0.50069	+0.61950	+0.73949	+0.85197	+0.94703
9.0.....	+0.36018	+0.48441	+0.60581	+0.72876	+0.84448	+0.94303
9.1.....	+0.34145	+0.46796	+0.59194	+0.71784	+0.83682	+0.93888
9.2.....	+0.32259	+0.45134	+0.57790	+0.70674	+0.82899	+0.93460
9.3.....	+0.30360	+0.43457	+0.56368	+0.69547	+0.82100	+0.93017
9.4.....	+0.28448	+0.41764	+0.54929	+0.68402	+0.81284	+0.92561
9.5.....	+0.26525	+0.40057	+0.53473	+0.67240	+0.80452	+0.92090
9.6.....	+0.24592	+0.38336	+0.52001	+0.66061	+0.79604	+0.91606
9.7.....	+0.22648	+0.36601	+0.50514	+0.64866	+0.78741	+0.91108
9.8.....	+0.20696	+0.34853	+0.49012	+0.63655	+0.77861	+0.90596
9.9.....	+0.18735	+0.33094	+0.47495	+0.62427	+0.76966	+0.90071
10.0.....	+0.16767	+0.31322	+0.45964	+0.61184	+0.76056	+0.89532

TABLE 6
 THE RADIAL P-WAVE FUNCTIONS χ_1 OF AN ELECTRON
 IN THE HARTREE FIELD OF A HYDROGEN ATOM

r	$k^2=1.75$	$k^2=1.50$	$k^2=1.25$	$k^2=1.00$	$k^2=0.80$	$k^2=0.70$
0.....	0	0	0	0	0	0
0.1.....	+0.00941	+0.00821	+0.00691	+0.00557	+0.00447	+0.00392
0.2.....	+0.03581	+0.03127	+0.02631	+0.02122	+0.01706	+0.01495
0.3.....	+0.07662	+0.06700	+0.05645	+0.04559	+0.03669	+0.03216
0.4.....	+0.12948	+0.11343	+0.09575	+0.07748	+0.06244	+0.05477
0.5.....	+0.19220	+0.16879	+0.14282	+0.11585	+0.09354	+0.08213
0.6.....	+0.26270	+0.23140	+0.19639	+0.15978	+0.12931	+0.11368
0.7.....	+0.33898	+0.29968	+0.25527	+0.20843	+0.16916	+0.14893
0.8.....	+0.41910	+0.37211	+0.31831	+0.26100	+0.21254	+0.18743
0.9.....	+0.50119	+0.44722	+0.38444	+0.31675	+0.25893	+0.22878
1.0.....	+0.58437	+0.52353	+0.45257	+0.37495	+0.30784	+0.27258
1.1.....	+0.66585	+0.59964	+0.52165	+0.43487	+0.35878	+0.31845
1.2.....	+0.74388	+0.67412	+0.59062	+0.49578	+0.41126	+0.36600
1.3.....	+0.81675	+0.74562	+0.65845	+0.55698	+0.46479	+0.41486
1.4.....	+0.88285	+0.81280	+0.72411	+0.61773	+0.51888	+0.46463
1.5.....	+0.94069	+0.87439	+0.78660	+0.67732	+0.57303	+0.51492
1.6.....	+0.98887	+0.92920	+0.84495	+0.73503	+0.62674	+0.56533
1.7.....	+1.02618	+0.97611	+0.89823	+0.79017	+0.67950	+0.61545
1.8.....	+1.05157	+1.01410	+0.94554	+0.84203	+0.73081	+0.66486
1.9.....	+1.06416	+1.04229	+0.98607	+0.88996	+0.78016	+0.71317
2.0.....	+1.06332	+1.05993	+1.01908	+0.93332	+0.82707	+0.75994
2.1.....	+1.04863	+1.06639	+1.04389	+0.97150	+0.87103	+0.80478
2.2.....	+1.01989	+1.06124	+1.05993	+1.00394	+0.91160	+0.84728
2.3.....	+0.97718	+1.04418	+1.06673	+1.03014	+0.94832	+0.88704
2.4.....	+0.92080	+1.01513	+1.06394	+1.04964	+0.98076	+0.92370
2.5.....	+0.85131	+0.97416	+1.05130	+1.06205	+1.00854	+0.95688
2.6.....	+0.76950	+0.92152	+1.02869	+1.06705	+1.03129	+0.98625
2.7.....	+0.67641	+0.85765	+0.99613	+1.06437	+1.04868	+1.01149
2.8.....	+0.57326	+0.78319	+0.95373	+1.05384	+1.06044	+1.03229
2.9.....	+0.46150	+0.69891	+0.90176	+1.03537	+1.06632	+1.04841
3.0.....	+0.34274	+0.60575	+0.84060	+1.00893	+1.06611	+1.05959
3.1.....	+0.21873	+0.50484	+0.77075	+0.97458	+1.05969	+1.06565
3.2.....	+0.09135	+0.39739	+0.69284	+0.93246	+1.04693	+1.06641
3.3.....	-0.03746	+0.28474	+0.60760	+0.88281	+1.02781	+1.06174
3.4.....	-0.16568	+0.16834	+0.51587	+0.82593	+1.00232	+1.05156
3.5.....	-0.29128	+0.04970	+0.41858	+0.76220	+0.97052	+1.03581
3.6.....	-0.41226	-0.06959	+0.31673	+0.69208	+0.93252	+1.01448
3.7.....	-0.52666	-0.18796	+0.21141	+0.61609	+0.88849	+0.98760
3.8.....	-0.63261	-0.30377	+0.10376	+0.53485	+0.83864	+0.95523
3.9.....	-0.72838	-0.41545	-0.00505	+0.44899	+0.78323	+0.91749
4.0.....	-0.81236	-0.52144	-0.11379	+0.35923	+0.72258	+0.87453
4.1.....	-0.88315	-0.62027	-0.22126	+0.26633	+0.65706	+0.82654
4.2.....	-0.93955	-0.71053	-0.32622	+0.17109	+0.58706	+0.77374
4.3.....	-0.98059	-0.79095	-0.42748	+0.07432	+0.51302	+0.71640
4.4.....	-1.00555	-0.86037	-0.52386	-0.02310	+0.43544	+0.65482
4.5.....	-1.01397	-0.91779	-0.61423	-0.12032	+0.35483	+0.58934
4.6.....	-1.00566	-0.96235	-0.69754	-0.21645	+0.27172	+0.52031
4.7.....	-0.98073	-0.99340	-0.77279	-0.31062	+0.18671	+0.44813
4.8.....	-0.93954	-1.01047	-0.83909	-0.40197	+0.10036	+0.37322
4.9.....	-0.88275	-1.01327	-0.89563	-0.48965	+0.01331	+0.29603
5.0.....	-0.81127	-1.00173	-0.94174	-0.57284	-0.07384	+0.21701

TABLE 6—Continued

r	$k^2 = 1.75$	$k^2 = 1.50$	$k^2 = 1.25$	$k^2 = 1.00$	$k^2 = 0.80$	$k^2 = 0.70$
5.1.....	-0.72625	-0.97598	-0.97684	-0.65077	-0.16046	+0.13664
5.2.....	-0.62910	-0.93636	-1.00049	-0.72269	-0.24592	+0.05543
5.3.....	-0.52143	-0.88340	-1.01238	-0.78792	-0.32960	-0.02613
5.4.....	-0.40501	-0.81784	-1.01235	-0.84584	-0.41087	-0.10753
5.5.....	-0.28179	-0.74058	-1.00037	-0.89589	-0.48914	-0.18825
5.6.....	-0.15383	-0.65272	-0.97656	-0.93758	-0.56382	-0.26778
5.7.....	-0.02329	-0.55549	-0.94118	-0.97050	-0.63435	-0.34560
5.8.....	+0.10765	-0.45028	-0.89462	-0.99431	-0.70021	-0.42122
5.9.....	+0.23777	-0.33860	-0.83742	-1.00878	-0.76087	-0.49414
6.0.....	+0.36189	-0.22203	-0.77025	-1.01375	-0.81589	-0.56388
6.1.....	+0.48089	-0.10226	-0.69388	-1.00915	-0.86485	-0.63000
6.2.....	+0.59174	+0.01898	-0.60923	-0.99501	-0.90735	-0.69204
6.3.....	+0.69255	+0.13995	-0.51728	-0.97145	-0.94307	-0.74961
6.4.....	+0.78161	+0.25890	-0.41913	-0.93867	-0.97172	-0.80230
6.5.....	+0.85740	+0.37409	-0.31595	-0.89697	-0.99308	-0.84978
6.6.....	+0.91860	+0.48385	-0.20898	-0.84673	-1.00697	-0.89171
6.7.....	+0.96417	+0.58658	-0.09950	-0.78841	-1.01327	-0.92781
6.8.....	+0.99333	+0.68079	+0.01119	-0.72257	-1.01192	-0.95783
6.9.....	+1.00555	+0.76509	+0.12174	-0.64982	-1.00292	-0.98157
7.0.....	+1.00063	+0.83825	+0.23082	-0.57086	-0.98632	-0.99885
7.1.....	+0.97862	+0.89920	+0.33711	-0.48642	-0.96223	-1.00955
7.2.....	+0.93990	+0.94702	+0.43932	-0.39731	-0.93084	-1.01359
7.3.....	+0.88512	+0.98103	+0.53622	-0.30439	-0.89236	-1.01093
7.4.....	+0.81521	+1.00070	+0.62662	-0.20854	-0.84709	-1.00157
7.5.....	+0.73134	+1.00575	+0.70943	-0.11068	-0.79535	-0.98557
7.6.....	+0.63496	+0.99609	+0.78363	-0.01175	-0.73753	-0.96303
7.7.....	+0.52770	+0.97185	+0.84831	+0.08728	-0.67407	-0.93408
7.8.....	+0.41139	+0.93337	+0.90269	+0.18548	-0.60545	-0.89891
7.9.....	+0.28804	+0.88122	+0.94609	+0.28188	-0.53219	-0.85775
8.0.....	+0.15974	+0.81615	+0.97798	+0.37556	-0.45485	-0.81087
8.1.....	+0.02869	+0.73911	+0.99797	+0.46560	-0.37401	-0.75856
8.2.....	-0.10284	+0.65122	+1.00579	+0.55113	-0.29029	-0.70118
8.3.....	-0.23261	+0.55376	+1.00136	+0.63132	-0.20434	-0.63910
8.4.....	-0.35838	+0.44817	+0.98471	+0.70538	-0.11682	-0.57273
8.5.....	-0.47799	+0.33599	+0.95604	+0.77259	-0.02839	-0.50252
8.6.....	-0.58938	+0.21888	+0.91570	+0.83230	+0.06025	-0.42894
8.7.....	-0.69062	+0.09854	+0.86417	+0.88392	+0.14843	-0.35247
8.8.....	-0.77999	-0.02325	+0.80208	+0.92693	+0.23547	-0.27362
8.9.....	-0.85592	-0.14469	+0.73018	+0.96093	+0.32068	-0.19294
9.0.....	-0.91711	-0.26400	+0.64934	+0.98557	+0.40340	-0.11095
9.1.....	-0.96250	-0.37943	+0.56056	+1.00060	+0.48300	-0.02821
9.2.....	-0.99130	-0.48926	+0.46491	+1.00587	+0.55886	+0.05472
9.3.....	-1.00302	-0.59187	+0.36357	+1.00133	+0.63038	+0.13728
9.4.....	-0.99744	-0.68576	+0.25777	+0.98702	+0.69701	+0.21891
9.5.....	-0.97465	-0.76952	+0.14881	+0.96307	+0.75822	+0.29905
9.6.....	-0.93505	-0.84193	+0.03803	+0.92971	+0.81354	+0.37717
9.7.....	-0.87931	-0.90191	-0.07322	+0.88726	+0.86252	+0.45274
9.8.....	-0.80839	-0.94856	-0.18358	+0.83614	+0.90480	+0.52523
9.9.....	-0.72351	-0.98121	-0.29167	+0.77683	+0.94003	+0.59416
10.0.....	-0.62614	-0.99935	-0.39619	+0.70992	+0.96794	+0.65905

TABLE 6—Continued

r	$k^2=0.60$	$k^2=0.50$	$k^2=0.45$	$k^2=0.35$	$k^2=0.25$	$k^2=0.20$
0.	0	0	0	0	0	0
0.1.	+0.00336	+0.00279	+0.00251	+0.00195	+0.00138	+0.00110
0.2.	+0.01282	+0.01067	+0.00960	+0.00744	+0.00528	+0.00421
0.3.	+0.02759	+0.02298	+0.02067	+0.01603	+0.01139	+0.00908
0.4.	+0.04702	+0.03920	+0.03527	+0.02737	+0.01946	+0.01552
0.5.	+0.07058	+0.05890	+0.05302	+0.04118	+0.02931	+0.02338
0.6.	+0.09781	+0.08172	+0.07360	+0.05724	+0.04079	+0.03256
0.7.	+0.12832	+0.10736	+0.09676	+0.07536	+0.05378	+0.04296
0.8.	+0.16176	+0.13556	+0.12228	+0.09539	+0.06818	+0.05451
0.9.	+0.19782	+0.16609	+0.14996	+0.11721	+0.08393	+0.06716
1.0.	+0.23620	+0.19874	+0.17962	+0.14069	+0.10095	+0.08086
1.1.	+0.27660	+0.23329	+0.21109	+0.16572	+0.11920	+0.09559
1.2.	+0.31875	+0.26954	+0.24421	+0.19222	+0.13861	+0.11130
1.3.	+0.36235	+0.30729	+0.27881	+0.22008	+0.15914	+0.12796
1.4.	+0.40711	+0.34633	+0.31472	+0.24898	+0.18074	+0.14555
1.5.	+0.45274	+0.38645	+0.35177	+0.27945	+0.20335	+0.16402
1.6.	+0.49892	+0.42743	+0.38978	+0.31075	+0.22692	+0.18335
1.7.	+0.54534	+0.46905	+0.42857	+0.34298	+0.25140	+0.20351
1.8.	+0.59169	+0.51107	+0.46794	+0.37602	+0.27673	+0.22445
1.9.	+0.63763	+0.55326	+0.50769	+0.40975	+0.30283	+0.24614
2.0.	+0.68285	+0.59537	+0.54762	+0.44403	+0.32965	+0.26852
2.1.	+0.72701	+0.63714	+0.58752	+0.47873	+0.35711	+0.29157
2.2.	+0.76978	+0.67835	+0.62719	+0.51372	+0.38514	+0.31523
2.3.	+0.81084	+0.71872	+0.66640	+0.54885	+0.41366	+0.33945
2.4.	+0.84987	+0.75800	+0.70494	+0.58397	+0.44259	+0.36417
2.5.	+0.88655	+0.79595	+0.74259	+0.61894	+0.47184	+0.38934
2.6.	+0.92059	+0.83232	+0.77913	+0.65361	+0.50134	+0.41491
2.7.	+0.95168	+0.86687	+0.81436	+0.68782	+0.53099	+0.44081
2.8.	+0.97956	+0.89935	+0.84805	+0.72143	+0.56071	+0.46698
2.9.	+1.00396	+0.92954	+0.88001	+0.75428	+0.59039	+0.49337
3.0.	+1.02465	+0.95721	+0.91003	+0.78622	+0.61996	+0.51990
3.1.	+1.04140	+0.98217	+0.93791	+0.81711	+0.64931	+0.54651
3.2.	+1.05401	+1.00421	+0.96348	+0.84680	+0.67836	+0.57314
3.3.	+1.06232	+1.02314	+0.98655	+0.87513	+0.70700	+0.59972
3.4.	+1.06617	+1.03880	+1.00696	+0.90198	+0.73516	+0.62617
3.5.	+1.06543	+1.05104	+1.02456	+0.92721	+0.76272	+0.65244
3.6.	+1.06002	+1.05972	+1.03919	+0.95069	+0.78961	+0.67846
3.7.	+1.04987	+1.06471	+1.05073	+0.97229	+0.81572	+0.70415
3.8.	+1.13494	+1.06592	+1.05906	+0.99189	+0.84098	+0.72945
3.9.	+1.01522	+1.06327	+1.06409	+1.00938	+0.86528	+0.75429
4.0.	+0.99074	+1.05668	+1.06571	+1.02466	+0.88855	+0.77861
4.1.	+0.96155	+1.04613	+1.06386	+1.03762	+0.91071	+0.80234
4.2.	+0.92773	+1.03159	+1.05849	+1.04818	+0.93166	+0.82541
4.3.	+0.88939	+1.01305	+1.04954	+1.05625	+0.95134	+0.84776
4.4.	+0.84667	+0.99054	+1.03701	+1.06177	+0.96967	+0.86933
4.5.	+0.79975	+0.96410	+1.02088	+1.06466	+0.98656	+0.89006
4.6.	+0.74882	+0.93380	+1.00116	+1.06488	+1.00197	+0.90988
4.7.	+0.69410	+0.89970	+0.97788	+1.06237	+1.01581	+0.92875
4.8.	+0.63585	+0.86192	+0.95108	+1.05711	+1.02803	+0.94659
4.9.	+0.57433	+0.82058	+0.92084	+1.04906	+1.03858	+0.96336
5.0.	+0.50985	+0.77582	+0.88721	+1.03822	+1.04739	+0.97901

TABLE 6—Continued

r	$k^2 = 0.60$	$k^2 = 0.50$	$k^2 = 0.45$	$k^2 = 0.35$	$k^2 = 0.25$	$k^2 = 0.20$
5.1.....	+0.44272	+0.72780	+0.85030	+1.02457	+1.05442	+0.99348
5.2.....	+0.37328	+0.67670	+0.81022	+1.00812	+1.05962	+1.00672
5.3.....	+0.30187	+0.62272	+0.76710	+0.98889	+1.06296	+1.01870
5.4.....	+0.22887	+0.56608	+0.72106	+0.96690	+1.06439	+1.02936
5.5.....	+0.15465	+0.50699	+0.67228	+0.94219	+1.06390	+1.03867
5.6.....	+0.07960	+0.44570	+0.62092	+0.91481	+1.06145	+1.04659
5.7.....	+0.00413	+0.38247	+0.56717	+0.88481	+1.05702	+1.05309
5.8.....	-0.07136	+0.31756	+0.51121	+0.85226	+1.05060	+1.05812
5.9.....	-0.14647	+0.25125	+0.45325	+0.81723	+1.04218	+1.06167
6.0.....	-0.22078	+0.18383	+0.39351	+0.77982	+1.03176	+1.06371
6.1.....	-0.29389	+0.11560	+0.33223	+0.74010	+1.01932	+1.06421
6.2.....	-0.36540	+0.04685	+0.26963	+0.69820	+1.00489	+1.06315
6.3.....	-0.43490	-0.02211	+0.20595	+0.65421	+0.98847	+1.06052
6.4.....	-0.50202	-0.09097	+0.14145	+0.60827	+0.97007	+1.05631
6.5.....	-0.56636	-0.15942	+0.07639	+0.56049	+0.94973	+1.05049
6.6.....	-0.62758	-0.22714	+0.01102	+0.51102	+0.92746	+1.04308
6.7.....	-0.68533	-0.29384	-0.05440	+0.46000	+0.90329	+1.03405
6.8.....	-0.73927	-0.35920	-0.11959	+0.40757	+0.87728	+1.02342
6.9.....	-0.78909	-0.42292	-0.18430	+0.35389	+0.84944	+1.01119
7.0.....	-0.83452	-0.48470	-0.24826	+0.29912	+0.81985	+0.99736
7.1.....	-0.87528	-0.54426	-0.31120	+0.24343	+0.78853	+0.98194
7.2.....	-0.91113	-0.60131	-0.37286	+0.18698	+0.75556	+0.96495
7.3.....	-0.94188	-0.65559	-0.43299	+0.12995	+0.72099	+0.94639
7.4.....	-0.96733	-0.70684	-0.49134	+0.07251	+0.68489	+0.92631
7.5.....	-0.98733	-0.75481	-0.54765	+0.01485	+0.64733	+0.90471
7.6.....	-1.00176	-0.79928	-0.60170	-0.04286	+0.60838	+0.88162
7.7.....	-1.01053	-0.84003	-0.65325	-0.10044	+0.56813	+0.85707
7.8.....	-1.01358	-0.87687	-0.70208	-0.15769	+0.52664	+0.83110
7.9.....	-1.01088	-0.90961	-0.74798	-0.21445	+0.48401	+0.80374
8.0.....	-1.00245	-0.93809	-0.79075	-0.27053	+0.44032	+0.77503
8.1.....	-0.98832	-0.96218	-0.83022	-0.32574	+0.39567	+0.74501
8.2.....	-0.96856	-0.98176	-0.86620	-0.37991	+0.35016	+0.71373
8.3.....	-0.94328	-0.99672	-0.89855	-0.43287	+0.30387	+0.68123
8.4.....	-0.91262	-1.00698	-0.92711	-0.48444	+0.25691	+0.64757
8.5.....	-0.87674	-1.01250	-0.95177	-0.53444	+0.20938	+0.61280
8.6.....	-0.83585	-1.01324	-0.97241	-0.58273	+0.16139	+0.57698
8.7.....	-0.79017	-1.00919	-0.98893	-0.62914	+0.11303	+0.54015
8.8.....	-0.73996	-1.00036	-1.00127	-0.67351	+0.06443	+0.50239
8.9.....	-0.68550	-0.98679	-1.00937	-0.71570	+0.01568	+0.46375
9.0.....	-0.62711	-0.96854	-1.01317	-0.75556	-0.03311	+0.42431
9.1.....	-0.56511	-0.94568	-1.01267	-0.79297	-0.08182	+0.38411
9.2.....	-0.49986	-0.91833	-1.00786	-0.82779	-0.13035	+0.34325
9.3.....	-0.43173	-0.88661	-0.99876	-0.85991	-0.17858	+0.30178
9.4.....	-0.36110	-0.85065	-0.98539	-0.88922	-0.22640	+0.25977
9.5.....	-0.28840	-0.81064	-0.96781	-0.91563	-0.27371	+0.21731
9.6.....	-0.21403	-0.76676	-0.94609	-0.93903	-0.32040	+0.17445
9.7.....	-0.13842	-0.71921	-0.92033	-0.95935	-0.36636	+0.13129
9.8.....	-0.06201	-0.66822	-0.89061	-0.97651	-0.41148	+0.08789
9.9.....	+0.01475	-0.61403	-0.85708	-0.99046	-0.45565	+0.04434
10.0.....	+0.09143	-0.55689	-0.81987	-1.00115	-0.49878	+0.00070

TABLE 6—Continued

r	$k^2=0.175$	$k^2=0.150$	$k^2=0.125$	$k^2=0.10$	$k^2=0.09$	$k^2=0.08$
0.....	0	0	0	0	0	0
0.1.....	+0.00096	+0.00082	+0.00068	+0.00054	+0.00049	+0.00043
0.2.....	+0.00367	+0.00314	+0.00261	+0.00208	+0.00187	+0.00166
0.3.....	+0.00793	+0.00678	+0.00563	+0.00449	+0.00404	+0.00358
0.4.....	+0.01355	+0.01159	+0.00963	+0.00769	+0.00691	+0.00613
0.5.....	+0.02042	+0.01747	+0.01453	+0.01159	+0.01042	+0.00925
0.6.....	+0.02845	+0.02434	+0.02024	+0.01616	+0.01453	+0.01290
0.7.....	+0.03754	+0.03213	+0.02674	+0.02135	+0.01920	+0.01705
0.8.....	+0.04766	+0.04081	+0.03397	+0.02713	+0.02440	+0.02168
0.9.....	+0.05875	+0.05033	+0.04191	+0.03349	+0.03013	+0.02677
1.0.....	+0.07077	+0.06066	+0.05054	+0.04041	+0.03636	+0.03231
1.1.....	+0.08371	+0.07179	+0.05984	+0.04788	+0.04309	+0.03830
1.2.....	+0.09753	+0.08369	+0.06981	+0.05589	+0.05031	+0.04473
1.3.....	+0.11220	+0.09635	+0.08043	+0.06444	+0.05802	+0.05159
1.4.....	+0.12772	+0.10976	+0.09169	+0.07351	+0.06621	+0.05889
1.5.....	+0.14405	+0.12389	+0.10357	+0.08310	+0.07487	+0.06662
1.6.....	+0.16116	+0.13873	+0.11608	+0.09322	+0.08401	+0.07478
1.7.....	+0.17905	+0.15426	+0.12919	+0.10384	+0.09362	+0.08337
1.8.....	+0.19766	+0.17047	+0.14290	+0.11497	+0.10370	+0.09237
1.9.....	+0.21698	+0.18733	+0.15720	+0.12660	+0.11423	+0.10180
2.0.....	+0.23698	+0.20481	+0.17206	+0.13872	+0.12522	+0.11163
2.1.....	+0.25762	+0.22290	+0.18746	+0.15131	+0.13665	+0.12188
2.2.....	+0.27886	+0.24157	+0.20341	+0.16437	+0.14851	+0.13252
2.3.....	+0.30066	+0.26079	+0.21986	+0.17789	+0.16080	+0.14356
2.4.....	+0.32299	+0.28052	+0.23681	+0.19185	+0.17351	+0.15499
2.5.....	+0.34579	+0.30075	+0.25423	+0.20624	+0.18663	+0.16679
2.6.....	+0.36903	+0.32142	+0.27210	+0.22105	+0.20014	+0.17897
2.7.....	+0.39267	+0.34252	+0.29039	+0.23625	+0.21403	+0.19150
2.8.....	+0.41664	+0.36400	+0.30907	+0.25184	+0.22829	+0.20438
2.9.....	+0.44090	+0.38583	+0.32813	+0.26779	+0.24290	+0.21760
3.0.....	+0.46541	+0.40797	+0.34754	+0.28409	+0.25785	+0.23114
3.1.....	+0.49011	+0.43037	+0.36725	+0.30072	+0.27313	+0.24500
3.2.....	+0.51494	+0.45300	+0.38725	+0.31765	+0.28871	+0.25915
3.3.....	+0.53985	+0.47581	+0.40751	+0.33488	+0.30459	+0.27360
3.4.....	+0.56479	+0.49877	+0.42800	+0.35237	+0.32074	+0.28832
3.5.....	+0.58970	+0.52183	+0.44867	+0.37011	+0.33714	+0.30330
3.6.....	+0.61453	+0.54494	+0.46951	+0.38808	+0.35379	+0.31852
3.7.....	+0.63923	+0.56807	+0.49047	+0.40625	+0.37065	+0.33398
3.8.....	+0.66372	+0.59117	+0.51153	+0.42460	+0.38772	+0.34965
3.9.....	+0.68797	+0.61419	+0.53266	+0.44311	+0.40497	+0.36552
4.0.....	+0.71191	+0.63709	+0.55381	+0.46175	+0.42239	+0.38157
4.1.....	+0.73549	+0.65983	+0.57496	+0.48051	+0.43995	+0.39779
4.2.....	+0.75865	+0.68236	+0.59607	+0.49935	+0.45763	+0.41417
4.3.....	+0.78134	+0.70463	+0.61711	+0.51826	+0.47542	+0.43068
4.4.....	+0.80350	+0.72661	+0.63804	+0.53720	+0.49329	+0.44731
4.5.....	+0.82508	+0.74825	+0.65883	+0.55617	+0.51123	+0.46405
4.6.....	+0.84604	+0.76949	+0.67944	+0.57512	+0.52921	+0.48086
4.7.....	+0.86631	+0.79031	+0.69985	+0.59404	+0.54721	+0.49775
4.8.....	+0.88584	+0.81066	+0.72001	+0.61290	+0.56522	+0.51469
4.9.....	+0.90460	+0.83050	+0.73990	+0.63169	+0.58320	+0.53166
5.0.....	+0.92252	+0.84978	+0.75947	+0.65036	+0.60115	+0.54865

TABLE 6—Continued

r	$k^2 = 0.175$	$k^2 = 0.150$	$k^2 = 0.125$	$k^2 = 0.10$	$k^2 = 0.09$	$k^2 = 0.08$
5.1.....	+0.93957	+0.86846	+0.77871	+0.66891	+0.61903	+0.56564
5.2.....	+0.95569	+0.88651	+0.79757	+0.68730	+0.63684	+0.58261
5.3.....	+0.97085	+0.90389	+0.81602	+0.70551	+0.65454	+0.59955
5.4.....	+0.98500	+0.92055	+0.83403	+0.72351	+0.67211	+0.61643
5.5.....	+0.99810	+0.93646	+0.85158	+0.74129	+0.68955	+0.63325
5.6.....	+1.01011	+0.95158	+0.86862	+0.75882	+0.70681	+0.64997
5.7.....	+1.02100	+0.96589	+0.88512	+0.77607	+0.72389	+0.66659
5.8.....	+1.03073	+0.97934	+0.90107	+0.79303	+0.74077	+0.68308
5.9.....	+1.03927	+0.99190	+0.91643	+0.80966	+0.75742	+0.69944
6.0.....	+1.04659	+1.00355	+0.93116	+0.82595	+0.77382	+0.71563
6.1.....	+1.05266	+1.01425	+0.94525	+0.84187	+0.78996	+0.73166
6.2.....	+1.05746	+1.02397	+0.95867	+0.85740	+0.80581	+0.74748
6.3.....	+1.06095	+1.03269	+0.97139	+0.87252	+0.82135	+0.76311
6.4.....	+1.06312	+1.04038	+0.98338	+0.88720	+0.83657	+0.77850
6.5.....	+1.06395	+1.04701	+0.99462	+0.90144	+0.85145	+0.79365
6.6.....	+1.06342	+1.05258	+1.00509	+0.91519	+0.86596	+0.80854
6.7.....	+1.06152	+1.05704	+1.01477	+0.92846	+0.88009	+0.82316
6.8.....	+1.05823	+1.06040	+1.02363	+0.94120	+0.89382	+0.83749
6.9.....	+1.05355	+1.06262	+1.03165	+0.95342	+0.90713	+0.85150
7.0.....	+1.04747	+1.06369	+1.03882	+0.96508	+0.92000	+0.86520
7.1.....	+1.03998	+1.06360	+1.04511	+0.97617	+0.93243	+0.87855
7.2.....	+1.03109	+1.06234	+1.05051	+0.98667	+0.94438	+0.89155
7.3.....	+1.02079	+1.05990	+1.05500	+0.99657	+0.95585	+0.90418
7.4.....	+1.00909	+1.05626	+1.05857	+1.00584	+0.96682	+0.91643
7.5.....	+0.99599	+1.05143	+1.06121	+1.01447	+0.97727	+0.92828
7.6.....	+0.98150	+1.04539	+1.06289	+1.02245	+0.98718	+0.93972
7.7.....	+0.96563	+1.03814	+1.06361	+1.02977	+0.99655	+0.95073
7.8.....	+0.94840	+1.02969	+1.06337	+1.03640	+1.00537	+0.96130
7.9.....	+0.92983	+1.02003	+1.06214	+1.04233	+1.01360	+0.97141
8.0.....	+0.90992	+1.00917	+1.05993	+1.04756	+1.02125	+0.98106
8.1.....	+0.88870	+0.99712	+1.05672	+1.05206	+1.02830	+0.99024
8.2.....	+0.86621	+0.98387	+1.05252	+1.05584	+1.03474	+0.99892
8.3.....	+0.84245	+0.96943	+1.04731	+1.05887	+1.04055	+1.00710
8.4.....	+0.81746	+0.95383	+1.04109	+1.06115	+1.04573	+1.01477
8.5.....	+0.79128	+0.93706	+1.03387	+1.06267	+1.05026	+1.02191
8.6.....	+0.76393	+0.91915	+1.02565	+1.06342	+1.05414	+1.02852
8.7.....	+0.73545	+0.90011	+1.01642	+1.06340	+1.05736	+1.03458
8.8.....	+0.70587	+0.87995	+1.00619	+1.06259	+1.05990	+1.04009
8.9.....	+0.67525	+0.85871	+0.99496	+1.06100	+1.06177	+1.04504
9.0.....	+0.64361	+0.83639	+0.98274	+1.05861	+1.06295	+1.04941
9.1.....	+0.61101	+0.81302	+0.96953	+1.05543	+1.06343	+1.05321
9.2.....	+0.57748	+0.78864	+0.95534	+1.05145	+1.06321	+1.05641
9.3.....	+0.54308	+0.76325	+0.94019	+1.04666	+1.06229	+1.05902
9.4.....	+0.50786	+0.73690	+0.92408	+1.04107	+1.06065	+1.06103
9.5.....	+0.47186	+0.70961	+0.90702	+1.03467	+1.05831	+1.06243
9.6.....	+0.43514	+0.68141	+0.88903	+1.02747	+1.05524	+1.06321
9.7.....	+0.39775	+0.65233	+0.87012	+1.01946	+1.05145	+1.06338
9.8.....	+0.35975	+0.62242	+0.85031	+1.01065	+1.04694	+1.06292
9.9.....	+0.32120	+0.59170	+0.82962	+1.00104	+1.04171	+1.06183
10.0.....	+0.28215	+0.56022	+0.80805	+0.99063	+1.03575	+1.06011

ELECTRON IN FIELD OF HYDROGEN ATOM

TABLE 6—Continued

r	$k^2 = 0.07$	$k^2 = 0.06$	$k^2 = 0.055$	$k^2 = 0.050$	$k^2 = 0.045$	$k^2 = 0.040$
0.....	0	0	0	0	0	0
0.1.....	+0.00038	+0.00032	+0.00030	+0.00027	+0.00024	+0.00022
0.2.....	+0.00145	+0.00124	+0.00114	+0.00103	+0.00093	+0.00083
0.3.....	+0.00313	+0.00268	+0.00246	+0.00223	+0.00201	+0.00178
0.4.....	+0.00536	+0.00459	+0.00420	+0.00382	+0.00343	+0.00305
0.5.....	+0.00809	+0.00692	+0.00634	+0.00576	+0.00518	+0.00460
0.6.....	+0.01128	+0.00965	+0.00884	+0.00804	+0.00723	+0.00642
0.7.....	+0.01490	+0.01276	+0.01169	+0.01062	+0.00956	+0.00849
0.8.....	+0.01895	+0.01623	+0.01487	+0.01351	+0.01216	+0.01080
0.9.....	+0.02341	+0.02005	+0.01837	+0.01670	+0.01502	+0.01335
1.0.....	+0.02826	+0.02421	+0.02219	+0.02017	+0.01815	+0.01613
1.1.....	+0.03351	+0.02871	+0.02632	+0.02392	+0.02153	+0.01913
1.2.....	+0.03914	+0.03355	+0.03075	+0.02796	+0.02516	+0.02237
1.3.....	+0.04516	+0.03872	+0.03550	+0.03228	+0.02905	+0.02583
1.4.....	+0.05157	+0.04423	+0.04055	+0.03688	+0.03320	+0.02952
1.5.....	+0.05835	+0.05006	+0.04591	+0.04176	+0.03760	+0.03343
1.6.....	+0.06552	+0.05623	+0.05158	+0.04691	+0.04225	+0.03758
1.7.....	+0.07307	+0.06273	+0.05755	+0.05236	+0.04716	+0.04195
1.8.....	+0.08099	+0.06956	+0.06383	+0.05808	+0.05233	+0.04655
1.9.....	+0.08929	+0.07672	+0.07041	+0.06409	+0.05774	+0.05139
2.0.....	+0.09796	+0.08421	+0.07730	+0.07037	+0.06342	+0.05645
2.1.....	+0.10700	+0.09202	+0.08449	+0.07693	+0.06935	+0.06174
2.2.....	+0.11640	+0.10015	+0.09197	+0.08376	+0.07553	+0.06726
2.3.....	+0.12616	+0.10860	+0.09976	+0.09087	+0.08196	+0.07300
2.4.....	+0.13627	+0.11736	+0.10783	+0.09826	+0.08864	+0.07897
2.5.....	+0.14673	+0.12643	+0.11620	+0.10591	+0.09557	+0.08517
2.6.....	+0.15752	+0.13581	+0.12485	+0.11383	+0.10274	+0.09158
2.7.....	+0.16865	+0.14549	+0.13379	+0.12201	+0.11015	+0.09822
2.8.....	+0.18010	+0.15546	+0.14300	+0.13044	+0.11781	+0.10507
2.9.....	+0.19187	+0.16571	+0.15248	+0.13914	+0.12570	+0.11215
3.0.....	+0.20394	+0.17625	+0.16223	+0.14808	+0.13382	+0.11943
3.1.....	+0.21631	+0.18707	+0.17224	+0.15727	+0.14217	+0.12692
3.2.....	+0.22896	+0.19815	+0.18250	+0.16670	+0.15074	+0.13462
3.3.....	+0.24190	+0.20949	+0.19302	+0.17636	+0.15953	+0.14252
3.4.....	+0.25510	+0.22108	+0.20377	+0.18625	+0.16854	+0.15063
3.5.....	+0.26855	+0.23292	+0.21476	+0.19637	+0.17776	+0.15893
3.6.....	+0.28225	+0.24499	+0.22597	+0.20670	+0.18719	+0.16742
3.7.....	+0.29618	+0.25728	+0.23741	+0.21725	+0.19682	+0.17610
3.8.....	+0.31034	+0.26980	+0.24906	+0.22800	+0.20664	+0.18496
3.9.....	+0.32470	+0.28252	+0.26091	+0.23895	+0.21665	+0.19400
4.0.....	+0.33926	+0.29544	+0.27296	+0.25010	+0.22685	+0.20322
4.1.....	+0.35400	+0.30855	+0.28520	+0.26142	+0.23723	+0.21261
4.2.....	+0.36891	+0.32184	+0.29762	+0.27293	+0.24778	+0.22216
4.3.....	+0.38398	+0.33530	+0.31021	+0.28461	+0.25850	+0.23188
4.4.....	+0.39919	+0.34892	+0.32297	+0.29645	+0.26939	+0.24176
4.5.....	+0.41454	+0.36269	+0.33587	+0.30845	+0.28042	+0.25178
4.6.....	+0.43001	+0.37660	+0.34893	+0.32060	+0.29161	+0.26196
4.7.....	+0.44557	+0.39064	+0.36212	+0.33289	+0.30295	+0.27227
4.8.....	+0.46123	+0.40480	+0.37544	+0.34532	+0.31441	+0.28273
4.9.....	+0.47697	+0.41907	+0.38888	+0.35787	+0.32602	+0.29331
5.0.....	+0.49277	+0.43343	+0.40243	+0.37054	+0.33774	+0.30402

TABLE 6—Continued

r	$k^2 = 0.07$	$k^2 = 0.06$	$k^2 = 0.055$	$k^2 = 0.050$	$k^2 = 0.045$	$k^2 = 0.040$
5.1.....	+0.50862	+0.44788	+0.41608	+0.38332	+0.34958	+0.31486
5.2.....	+0.52450	+0.46240	+0.42982	+0.39620	+0.36154	+0.32580
5.3.....	+0.54040	+0.47699	+0.44364	+0.40918	+0.37359	+0.33686
5.4.....	+0.55631	+0.49163	+0.45754	+0.42225	+0.38575	+0.34803
5.5.....	+0.57221	+0.50632	+0.47149	+0.43539	+0.39800	+0.35929
5.6.....	+0.58809	+0.52103	+0.48550	+0.44860	+0.41033	+0.37065
5.7.....	+0.60393	+0.53576	+0.49955	+0.46188	+0.42274	+0.38209
5.8.....	+0.61972	+0.55051	+0.51363	+0.47521	+0.43521	+0.39362
5.9.....	+0.63545	+0.56524	+0.52773	+0.48858	+0.44775	+0.40522
6.0.....	+0.65109	+0.57997	+0.54185	+0.50199	+0.46035	+0.41690
6.1.....	+0.66664	+0.59467	+0.55597	+0.51542	+0.47299	+0.42864
6.2.....	+0.68208	+0.60933	+0.57008	+0.52888	+0.48568	+0.44044
6.3.....	+0.69740	+0.62394	+0.58418	+0.54235	+0.49840	+0.45229
6.4.....	+0.71259	+0.63849	+0.59825	+0.55582	+0.51115	+0.46418
6.5.....	+0.72762	+0.65297	+0.61228	+0.56928	+0.52391	+0.47612
6.6.....	+0.74249	+0.66737	+0.62627	+0.58273	+0.53669	+0.48810
6.7.....	+0.75717	+0.68168	+0.64020	+0.59615	+0.54947	+0.50010
6.8.....	+0.77167	+0.69588	+0.65406	+0.60954	+0.56225	+0.51213
6.9.....	+0.78596	+0.70996	+0.66784	+0.62289	+0.57503	+0.52417
7.0.....	+0.80003	+0.72391	+0.68154	+0.63619	+0.58778	+0.53622
7.1.....	+0.81387	+0.73773	+0.69514	+0.64943	+0.60051	+0.54828
7.2.....	+0.82745	+0.75140	+0.70864	+0.66261	+0.61321	+0.56033
7.3.....	+0.84078	+0.76490	+0.72202	+0.67571	+0.62586	+0.57238
7.4.....	+0.85384	+0.77823	+0.73527	+0.68872	+0.63847	+0.58441
7.5.....	+0.86661	+0.79138	+0.74839	+0.70164	+0.65103	+0.59643
7.6.....	+0.87908	+0.80434	+0.76136	+0.71446	+0.66353	+0.60841
7.7.....	+0.89124	+0.81709	+0.77417	+0.72717	+0.67595	+0.62037
7.8.....	+0.90308	+0.82963	+0.78682	+0.73977	+0.68830	+0.63228
7.9.....	+0.91458	+0.84195	+0.79930	+0.75223	+0.70057	+0.64415
8.0.....	+0.92574	+0.85402	+0.81159	+0.76456	+0.71275	+0.65597
8.1.....	+0.93653	+0.86586	+0.82370	+0.77675	+0.72482	+0.66773
8.2.....	+0.94696	+0.87743	+0.83559	+0.78878	+0.73680	+0.67943
8.3.....	+0.95700	+0.88874	+0.84728	+0.80066	+0.74866	+0.69105
8.4.....	+0.96666	+0.89978	+0.85875	+0.81237	+0.76040	+0.70261
8.5.....	+0.97591	+0.91053	+0.86999	+0.82390	+0.77201	+0.71408
8.6.....	+0.98475	+0.92099	+0.88099	+0.83526	+0.78349	+0.72546
8.7.....	+0.99316	+0.93114	+0.89175	+0.84638	+0.79483	+0.73675
8.8.....	+1.00114	+0.94108	+0.90225	+0.85736	+0.80603	+0.74793
8.9.....	+1.00868	+0.95050	+0.91248	+0.86811	+0.81706	+0.75902
9.0.....	+1.01577	+0.95969	+0.92245	+0.87865	+0.82794	+0.76999
9.1.....	+1.02240	+0.96854	+0.93214	+0.88896	+0.83865	+0.78084
9.2.....	+1.02856	+0.97704	+0.94153	+0.89904	+0.84918	+0.79157
9.3.....	+1.03424	+0.98519	+0.95064	+0.90889	+0.85953	+0.80217
9.4.....	+1.03944	+0.99297	+0.95944	+0.91849	+0.86970	+0.81263
9.5.....	+1.04414	+1.00039	+0.96793	+0.92784	+0.87967	+0.82295
9.6.....	+1.04835	+1.00742	+0.97610	+0.93693	+0.88944	+0.83313
9.7.....	+1.05202	+1.01407	+0.98395	+0.94575	+0.89900	+0.84315
9.8.....	+1.05523	+1.02033	+0.99146	+0.95431	+0.90835	+0.85302
9.9.....	+1.05790	+1.02618	+0.99864	+0.96259	+0.91747	+0.86272
10.0.....	+1.06005	+1.03163	+1.00547	+0.97058	+0.92638	+0.87225

TABLE 6—Continued

r	$k^2 = 0.035$	$k^2 = 0.030$	$k^2 = 0.025$	$k^2 = 0.020$	$k^2 = 0.015$
0.....	0	0	0	0	0
0.1.....	+0.00019	+0.00016	+0.00013	+0.00011	+0.00008
0.2.....	+0.00072	+0.00062	+0.00051	+0.00041	+0.00031
0.3.....	+0.00156	+0.00133	+0.00111	+0.00089	+0.00067
0.4.....	+0.00267	+0.00228	+0.00190	+0.00152	+0.00114
0.5.....	+0.00402	+0.00345	+0.00287	+0.00229	+0.00172
0.6.....	+0.00561	+0.00481	+0.00401	+0.00320	+0.00240
0.7.....	+0.00742	+0.00636	+0.00530	+0.00424	+0.00317
0.8.....	+0.00945	+0.00809	+0.00674	+0.00539	+0.00404
0.9.....	+0.01167	+0.01000	+0.00833	+0.00666	+0.00499
1.0.....	+0.01411	+0.01209	+0.01007	+0.00805	+0.00604
1.1.....	+0.01674	+0.01434	+0.01195	+0.00956	+0.00717
1.2.....	+0.01957	+0.01677	+0.01398	+0.01118	+0.00838
1.3.....	+0.02260	+0.01937	+0.01615	+0.01292	+0.00969
1.4.....	+0.02583	+0.02215	+0.01846	+0.01477	+0.01108
1.5.....	+0.02927	+0.02509	+0.02092	+0.01674	+0.01256
1.6.....	+0.03290	+0.02822	+0.02352	+0.01883	+0.01413
1.7.....	+0.03674	+0.03151	+0.02628	+0.02104	+0.01579
1.8.....	+0.04077	+0.03498	+0.02918	+0.02336	+0.01754
1.9.....	+0.04501	+0.03863	+0.03222	+0.02581	+0.01938
2.0.....	+0.04946	+0.04245	+0.03542	+0.02837	+0.02131
2.1.....	+0.05411	+0.04645	+0.03877	+0.03106	+0.02333
2.2.....	+0.05895	+0.05062	+0.04226	+0.03387	+0.02544
2.3.....	+0.06401	+0.05497	+0.04590	+0.03679	+0.02765
2.4.....	+0.06926	+0.05950	+0.04969	+0.03984	+0.02995
2.5.....	+0.07471	+0.06420	+0.05363	+0.04301	+0.03234
2.6.....	+0.08036	+0.06907	+0.05772	+0.04631	+0.03482
2.7.....	+0.08621	+0.07412	+0.06196	+0.04972	+0.03740
2.8.....	+0.09225	+0.07934	+0.06634	+0.05325	+0.04007
2.9.....	+0.09849	+0.08473	+0.07087	+0.05690	+0.04283
3.0.....	+0.10492	+0.09029	+0.07554	+0.06067	+0.04568
3.1.....	+0.11154	+0.09602	+0.08036	+0.06456	+0.04863
3.2.....	+0.11835	+0.10191	+0.08532	+0.06857	+0.05166
3.3.....	+0.12534	+0.10797	+0.09042	+0.07270	+0.05479
3.4.....	+0.13251	+0.11419	+0.09566	+0.07694	+0.05801
3.5.....	+0.13986	+0.12057	+0.10105	+0.08130	+0.06132
3.6.....	+0.14739	+0.12710	+0.10656	+0.08577	+0.06471
3.7.....	+0.15509	+0.13380	+0.11222	+0.09035	+0.06820
3.8.....	+0.16296	+0.14064	+0.11801	+0.09505	+0.07177
3.9.....	+0.17100	+0.14764	+0.12393	+0.09986	+0.07543
4.0.....	+0.17920	+0.15478	+0.12998	+0.10478	+0.07918
4.1.....	+0.18756	+0.16208	+0.13616	+0.10981	+0.08302
4.2.....	+0.19607	+0.16951	+0.14247	+0.11494	+0.08694
4.3.....	+0.20474	+0.17708	+0.14890	+0.12019	+0.09095
4.4.....	+0.21356	+0.18480	+0.15545	+0.12554	+0.09504
4.5.....	+0.22252	+0.19264	+0.16213	+0.13099	+0.09921
4.6.....	+0.23163	+0.20062	+0.16893	+0.13654	+0.10347
4.7.....	+0.24087	+0.20873	+0.17584	+0.14220	+0.10781
4.8.....	+0.25024	+0.21696	+0.18287	+0.14796	+0.11223
4.9.....	+0.25975	+0.22532	+0.19001	+0.15381	+0.11673
5.0.....	+0.26938	+0.23379	+0.19726	+0.15977	+0.12131

TABLE 6—Continued

r	$k^2 = 0.035$	$k^2 = 0.030$	$k^2 = 0.025$	$k^2 = 0.020$	$k^2 = 0.015$
5.1.....	+0.27913	+0.24239	+0.20462	+0.16582	+0.12596
5.2.....	+0.28899	+0.25109	+0.21208	+0.17196	+0.13070
5.3.....	+0.29897	+0.25991	+0.21965	+0.17819	+0.13551
5.4.....	+0.30906	+0.26883	+0.22732	+0.18452	+0.14040
5.5.....	+0.31925	+0.27786	+0.23509	+0.19094	+0.14537
5.6.....	+0.32954	+0.28699	+0.24296	+0.19744	+0.15041
5.7.....	+0.33993	+0.29621	+0.25092	+0.20403	+0.15552
5.8.....	+0.35040	+0.30553	+0.25897	+0.21070	+0.16070
5.9.....	+0.36096	+0.31493	+0.26711	+0.21746	+0.16596
6.0.....	+0.37160	+0.32443	+0.27534	+0.22430	+0.17129
6.1.....	+0.38232	+0.33400	+0.28365	+0.23122	+0.17668
6.2.....	+0.39311	+0.34366	+0.29204	+0.23822	+0.18215
6.3.....	+0.40397	+0.35339	+0.30052	+0.24529	+0.18768
6.4.....	+0.41488	+0.36319	+0.30906	+0.25244	+0.19328
6.5.....	+0.42586	+0.37307	+0.31769	+0.25966	+0.19894
6.6.....	+0.43689	+0.38300	+0.32638	+0.26695	+0.20467
6.7.....	+0.44796	+0.39300	+0.33514	+0.27431	+0.21046
6.8.....	+0.45908	+0.40305	+0.34397	+0.28174	+0.21631
6.9.....	+0.47024	+0.41316	+0.35286	+0.28924	+0.22223
7.0.....	+0.48143	+0.42332	+0.36180	+0.29679	+0.22820
7.1.....	+0.49265	+0.43352	+0.37081	+0.30441	+0.23424
7.2.....	+0.50389	+0.44377	+0.37987	+0.31209	+0.24033
7.3.....	+0.51515	+0.45405	+0.38898	+0.31983	+0.24647
7.4.....	+0.52642	+0.46437	+0.39815	+0.32762	+0.25268
7.5.....	+0.53770	+0.47472	+0.40735	+0.33547	+0.25894
7.6.....	+0.54898	+0.48509	+0.41660	+0.34337	+0.26525
7.7.....	+0.56026	+0.49549	+0.42589	+0.35132	+0.27161
7.8.....	+0.57153	+0.50590	+0.43522	+0.35932	+0.27802
7.9.....	+0.58280	+0.51633	+0.44458	+0.36736	+0.28449
8.0.....	+0.59404	+0.52677	+0.45398	+0.37545	+0.29100
8.1.....	+0.60526	+0.53722	+0.46340	+0.38358	+0.29756
8.2.....	+0.61646	+0.54767	+0.47284	+0.39175	+0.30416
8.3.....	+0.62762	+0.55812	+0.48231	+0.39996	+0.31081
8.4.....	+0.63874	+0.56856	+0.49180	+0.40821	+0.31751
8.5.....	+0.64982	+0.57899	+0.50131	+0.41649	+0.32424
8.6.....	+0.66086	+0.58941	+0.51083	+0.42480	+0.33102
8.7.....	+0.67184	+0.59982	+0.52035	+0.43314	+0.33784
8.8.....	+0.68277	+0.61020	+0.52989	+0.44151	+0.34470
8.9.....	+0.69363	+0.62055	+0.53943	+0.44990	+0.35159
9.0.....	+0.70442	+0.63088	+0.54897	+0.45832	+0.35852
9.1.....	+0.71514	+0.64117	+0.55851	+0.46676	+0.36548
9.2.....	+0.72579	+0.65142	+0.56805	+0.47522	+0.37248
9.3.....	+0.73635	+0.66164	+0.57758	+0.48370	+0.37951
9.4.....	+0.74682	+0.67181	+0.58710	+0.49219	+0.38657
9.5.....	+0.75720	+0.68192	+0.59660	+0.50069	+0.39366
9.6.....	+0.76749	+0.69199	+0.60609	+0.50921	+0.40078
9.7.....	+0.77767	+0.70200	+0.61555	+0.51773	+0.40792
9.8.....	+0.78775	+0.71194	+0.62499	+0.52626	+0.41509
9.9.....	+0.79771	+0.72182	+0.63441	+0.53480	+0.42229
10.0.....	+0.80756	+0.73164	+0.64380	+0.54333	+0.42950

ELECTRON IN FIELD OF HYDROGEN ATOM

TABLE 6—Continued

r	$k^2=1.75$	$k^2=1.50$	$k^2=1.25$	$k^2=1.00$	$k^2=0.80$	$k^2=0.70$
10.0	-0.62614	-0.99935	-0.39619	+0.70992	+0.96794	+0.65901
10.2	-0.40081	-0.99126	-0.58939	+0.55597	+1.00096	+0.77498
10.4	-0.14789	-0.92475	-0.75369	+0.38028	+1.00280	+0.86986
10.6	+0.11521	-0.80371	-0.88101	+0.18971	+0.97337	+0.94108
10.8	+0.37037	-0.63525	-0.96509	-0.00829	+0.91357	+0.98667
11.0	+0.60000	-0.42930	-1.00177	-0.20597	+0.82523	+1.00538
11.2	+0.78828	-0.19800	-0.98923	-0.39557	+0.71110	+0.99666
11.4	+0.92218	+0.04500	-0.92805	-0.56964	+0.57473	+0.96074
11.6	+0.99248	+0.28533	-0.82124	-0.72136	+0.42037	+0.89857
11.8	+0.99428	+0.50880	-0.67401	-0.84474	+0.25284	+0.81182
12.0	+0.92745	+0.70218	-0.49361	-0.93493	+0.07738	+0.70286
12.2	+0.79659	+0.85402	-0.28891	-0.98836	-0.10050	+0.57466
12.4	+0.61071	+0.95533	-0.06997	-1.00292	-0.27522	+0.43071
12.6	+0.38265	+1.00010	+0.15241	-0.97801	-0.44131	+0.27496
12.8	+0.12815	+0.98566	+0.36728	-0.91460	-0.59353	+0.11166
13.0	-0.13521	+0.91285	+0.56404	-0.81517	-0.72709	+0.05470
13.2	-0.38922	+0.78597	+0.73299	-0.68362	-0.83780	-0.21956
13.4	-0.61632	+0.61253	+0.86576	-0.52514	-0.92214	-0.37839
13.6	-0.80080	+0.40279	+0.95581	-0.34595	-0.97747	-0.52681
13.8	-0.92989	+0.16917	+0.99868	-0.15312	-1.00202	-0.66075
14.0	-0.99465	-0.07448	+0.99224	+0.04575	-0.99501	-0.77650
14.2	-0.99059	-0.31371	+0.93679	+0.24282	-0.95665	-0.87088
14.4	-0.91798	-0.53433	+0.83507	-0.43030	-0.88813	-0.94127
14.6	-0.78183	-0.72326	+0.69208	+0.60079	-0.79162	-0.98573
14.8	-0.59157	-0.86927	+0.51490	+0.74755	-0.67013	-1.00302
15.0	-0.36035	-0.96371	+0.31226	+0.86478	-0.52750	-0.99266
15.2	-0.10417	-1.00095	+0.09418	+0.94784	-0.36822	-0.95492
15.4	+0.15922	-0.97877	-0.12855	+0.99344	-0.19732	-0.89083
15.6	+0.41157	-0.89848	-0.34492	+0.99976	-0.02018	-0.80216
15.8	+0.63542	-0.76485	-0.54423	+0.96656	+0.15759	-0.69134
16.0	+0.81525	-0.58580	-0.71662	+0.89512	+0.33038	-0.56143
16.2	+0.93860	-0.37196	-0.85354	+0.78828	+0.49273	-0.41601
16.4	+0.99690	-0.13602	-0.94822	+0.65026	+0.63951	-0.25909
16.6	+0.98612	+0.10800	-0.99597	+0.48650	+0.76606	-0.09502
16.8	+0.90700	+0.34560	-0.99442	+0.30348	+0.86839	+0.07168
17.0	+0.76501	+0.56267	-0.94362	+0.10845	+0.94324	+0.23640
17.2	+0.56998	+0.74629	-0.84611	-0.09087	+0.98825	+0.39458
17.4	+0.33545	+0.88557	-0.70669	-0.28659	+1.00199	+0.54185
17.6	+0.07765	+0.97220	-0.53226	-0.47096	+0.98402	+0.67412
17.8	-0.18553	+1.00104	-0.33147	-0.63668	+0.93489	+0.78773
18.0	-0.43584	+0.97037	-0.11426	-0.77717	+0.85616	+0.87953
18.2	-0.65593	+0.88200	+0.10861	-0.88687	+0.75031	+0.94698
18.4	-0.83052	+0.74119	+0.32610	-0.96142	+0.62070	+0.98821
18.6	-0.94752	+0.55630	+0.52743	-0.99788	+0.47143	+1.00206
18.8	-0.99878	+0.33833	+0.70262	-0.99478	+0.30721	+0.98815
19.0	-0.98076	+0.10023	+0.84298	-0.95224	+0.13327	+0.94686
19.2	-0.89470	-0.14383	+0.94155	-0.87195	-0.04490	+0.87933
19.4	-0.74657	-0.37933	+0.99344	-0.75709	-0.22165	+0.78742
19.6	-0.54664	-0.59227	+0.99607	-0.61220	-0.39137	+0.67368
19.8	-0.30877	-0.76997	+0.94932	-0.44303	-0.54868	+0.54127
20.0	-0.04948	-0.90185	+0.85548	-0.25629	-0.68859	+0.39384
20.2	+0.21324	-0.98007	+0.71922	-0.05939	-0.80666	+0.23549
20.4	+0.46116	-0.99998	+0.54729	+0.13988	-0.89915	+0.07061
20.6	+0.67708	-0.96037	+0.34821	+0.33359	-0.96310	-0.09623
20.8	+0.84600	-0.86360	+0.13186	+0.51406	-0.99651	-0.26040
21.0	+0.95621	-0.71544	-0.09103	+0.67414	-0.99829	-0.41734
21.2	+1.00004	-0.52469	-0.30941	+0.80746	-0.96839	-0.56271
21.4	+0.97445	-0.30271	-0.51243	+0.90873	-0.90776	-0.69245
21.6	+0.88121	-0.06271	-0.69003	+0.97394	-0.81831	-0.80297
21.8	+0.72679	+0.18102	-0.83339	+1.00048	-0.70289	-0.89119
22.0	+0.52192	+0.41398	-0.93539	+0.98730	-0.56515	-0.95467
22.2	+0.28081	+0.62229	-0.99097	+0.93492	-0.40947	-0.99164
22.4	+0.02020	+0.79354	-0.99736	+0.84542	-0.24079	-1.00106
22.6	-0.24181	+0.91755	-0.95425	+0.72236	-0.06446	-0.98269
22.8	-0.48703	+0.98692	-0.86378	+0.57060	+0.11392	-0.93701
23.0	-0.69843	+0.99752	-0.73043	+0.39619	+0.28867	-0.86530
23.2	-0.86133	+0.94871	-0.56081	+0.20604	+0.45426	-0.76955
23.4	-0.96441	+0.84341	-0.36336	+0.00770	+0.60542	-0.65242
23.6	-1.00051	+0.68787	-0.14787	-0.19094	+0.73735	-0.51715
23.8	-0.96712	+0.49137	+0.07497	-0.38199	+0.84584	-0.36752
24.0	-0.86657	+0.26559	+0.29408	-0.55787	+0.92747	-0.20767
24.2	-0.70582	+0.02400	+0.49859	-0.71159	+0.97961	-0.04205
24.4	-0.49605	-0.21902	+0.67835	-0.83703	+1.00063	+0.12475
24.6	-0.25182	-0.44899	+0.82441	-0.92922	+0.98985	+0.28807
24.8	+0.00990	-0.65222	+0.92954	-0.98448	+0.94761	+0.44338
25.0	+0.27093	-0.81659	+0.98850	-1.00062	+0.87524	+0.58637

TABLE 6—Continued

r	$k^2=0.60$	$k^2=0.50$	$k^2=0.45$	$k^2=0.35$	$k^2=0.25$	$k^2=0.20$
10.0	+0.09143	-0.55689	-0.81987	-1.00115	-0.49878	+0.00070
10.2	+0.24276	-0.43489	-0.73504	-1.01259	-0.58150	-0.08648
10.4	+0.38846	-0.30454	-0.63756	-1.01065	-0.65886	-0.17304
10.6	+0.52515	-0.16833	-0.52910	-0.99532	-0.73011	-0.25835
10.8	+0.64962	-0.02889	-0.41150	-0.96678	-0.79460	-0.34177
11.0	+0.75898	+0.11112	-0.28679	-0.92539	-0.85168	-0.42269
11.2	+0.85066	+0.24898	-0.15712	-0.87166	-0.90082	-0.50052
11.4	+0.92250	+0.38202	-0.02472	-0.80630	-0.94153	-0.57466
11.6	+0.97282	+0.50767	+0.10811	-0.73016	-0.97342	-0.64456
11.8	+1.00041	+0.62349	+0.23906	-0.64424	-0.99615	-0.70968
12.0	+1.00461	+0.72721	+0.36585	-0.54969	-1.00950	-0.76955
12.2	+0.98530	+0.81681	+0.48626	-0.44775	-1.01333	-0.82368
12.4	+0.94292	+0.89055	+0.59820	-0.33979	-1.00758	-0.87168
12.6	+0.87844	+0.94696	+0.69969	-0.22726	-0.99228	-0.91315
12.8	+0.79337	+0.98494	+0.78896	-0.11166	-0.96756	-0.94779
13.0	+0.68968	+1.00374	+0.86444	+0.00544	-0.93365	-0.97531
13.2	+0.56979	+1.00296	+0.92478	+0.12247	-0.89086	-0.99550
13.4	+0.43652	+0.98263	+0.96893	+0.23785	-0.83957	-1.00818
13.6	+0.29299	+0.94310	+0.99609	+0.35000	-0.78026	-1.01325
13.8	+0.14256	+0.88516	+1.00578	+0.45741	-0.71350	-1.01066
14.0	-0.01122	+0.80991	+0.99782	+0.55861	-0.63991	-1.00041
14.2	-0.16474	+0.71882	+0.97233	+0.65223	-0.56018	-0.98258
14.4	-0.31437	+0.61366	+0.92974	+0.73699	-0.47508	-0.95727
14.6	-0.45659	+0.49648	+0.87080	+0.81172	-0.38541	-0.92469
14.8	-0.58805	+0.36958	+0.79654	+0.87541	-0.29204	-0.88505
15.0	-0.70564	+0.23543	+0.70825	+0.92718	-0.19586	-0.83867
15.2	-0.80658	+0.09667	+0.60749	+0.96631	-0.09779	-0.78588
15.4	-0.88847	-0.04399	+0.49601	+0.99226	+0.00122	-0.72707
15.6	-0.94939	-0.18379	+0.37579	+1.00467	+0.10022	-0.66270
15.8	-0.98787	-0.31998	+0.24894	+1.00336	+0.19826	-0.59325
16.0	-1.00301	-0.44988	+0.11769	+0.98834	+0.29437	-0.51924
16.2	-0.99443	-0.57093	-0.01564	+0.95980	+0.38764	-0.44125
16.4	-0.96234	-0.68077	-0.14869	+0.91814	+0.47715	-0.35986
16.6	-0.90749	-0.77721	-0.27911	+0.86391	+0.56203	-0.27571
16.8	-0.83116	-0.85835	-0.40460	+0.79785	+0.64146	-0.18943
17.0	-0.73515	-0.92261	-0.52292	+0.72086	+0.71466	-0.10168
17.2	-0.62175	-0.96869	-0.63200	+0.63399	+0.78093	-0.01316
17.4	-0.49361	-0.99569	-0.72988	+0.53843	+0.83959	+0.07547
17.6	-0.35379	-1.00308	-0.81484	+0.43547	+0.89009	+0.16351
17.8	-0.20558	-0.99069	-0.88537	+0.32654	+0.93193	+0.25029
18.0	-0.05250	-0.95878	-0.94020	+0.21313	+0.96469	+0.33513
18.2	+0.10183	-0.90795	-0.97837	+0.09679	+0.98805	+0.41738
18.4	+0.25374	-0.83922	-0.99919	-0.02088	+1.00178	+0.49639
18.6	+0.39963	-0.75393	-1.00228	-0.13827	+1.00573	+0.57154
18.8	+0.53604	-0.65375	-0.98760	-0.25375	+0.99986	+0.64226
19.0	+0.65974	-0.54068	-0.95538	-0.36574	+0.98423	+0.70799
19.2	+0.76778	-0.41692	-0.90621	-0.47270	+0.95899	+0.76822
19.4	+0.85759	-0.28493	-0.84094	-0.57315	+0.92437	+0.82247
19.6	+0.92705	-0.14732	-0.76074	-0.66571	+0.88071	+0.87032
19.8	+0.97449	-0.00679	-0.66702	-0.74909	+0.82843	+0.91140
20.0	+0.99879	+0.13387	-0.56145	-0.82215	+0.76805	+0.94537
20.2	+0.99936	+0.27189	-0.44591	-0.88388	+0.70014	+0.97197
20.4	+0.97619	+0.40453	-0.32243	-0.93343	+0.62538	+0.99100
20.6	+0.92983	+0.52917	-0.19322	-0.97010	+0.54449	+1.00229
20.8	+0.86137	+0.64334	-0.06058	-0.99338	+0.45826	+1.00575
21.0	+0.77244	+0.74479	+0.07314	-1.00296	+0.36753	+1.00137
21.2	+0.66515	+0.83150	+0.20556	-0.99870	+0.27320	+0.98915
21.4	+0.54204	+0.90175	+0.33433	-0.98064	+0.17619	+0.96921
21.6	+0.40605	+0.95416	+0.45714	-0.94905	+0.07745	+0.94169
21.8	+0.26039	+0.98768	+0.57181	-0.90434	-0.02205	+0.90680
22.0	+0.10855	+1.00164	+0.67630	-0.84715	-0.12133	+0.86481
22.2	-0.04588	+0.99577	+0.76875	-0.77824	-0.21943	+0.81605
22.4	-0.19922	+0.97018	+0.84751	-0.69858	-0.31536	+0.76090
20.6	-0.34781	+0.92537	+0.91117	-0.60926	-0.40820	+0.69979
22.8	-0.48813	+0.86223	+0.95859	-0.51152	-0.49702	+0.63319
23.0	-0.61683	+0.78200	+0.98893	-0.40670	-0.58095	+0.56163
23.2	-0.73085	+0.68628	+1.00165	-0.29626	-0.65916	+0.48566
23.4	-0.82747	+0.57696	+0.99651	-0.18171	-0.73088	+0.40588
23.6	-0.90440	+0.45620	+0.97361	-0.06466	-0.79541	+0.32292
23.8	-0.95979	+0.32640	+0.93335	+0.05329	-0.85211	+0.23742
24.0	-0.99233	+0.19042	+0.87645	+0.17051	-0.90041	+0.15005
24.2	-1.00123	+0.05067	+0.80391	+0.28536	-0.93984	+0.06151
24.4	-0.98629	-0.09009	+0.71703	+0.39626	-0.97001	-0.02751
24.6	-0.94786	-0.22907	+0.61737	+0.50168	-0.99061	-0.11632
24.8	-0.88685	-0.36350	+0.50669	+0.60014	-1.00145	-0.20422
25.0	-0.80471	-0.49071	+0.38697	+0.69029	-1.00241	-0.29051

ELECTRON IN FIELD OF HYDROGEN ATOM

TABLE 6—Continued

r	$k^2=0.175$	$k^2=0.150$	$k^2=0.125$	$k^2=0.10$	$k^2=0.09$	$k^2=0.07$
10.0	+0.28215	+0.56022	+0.80805	+0.99063	+1.03575	+1.06005
10.2	+0.20280	+0.49511	+0.76240	+0.96745	+1.02166	+1.06274
10.4	+0.12219	+0.42741	+0.71352	+0.94114	+1.00468	+1.06327
10.6	+0.04082	+0.35746	+0.66161	+0.91176	+0.98482	+1.06161
10.8	-0.04081	+0.28563	+0.60686	+0.87939	+0.96213	+1.05774
11.0	-0.12219	+0.21227	+0.54949	+0.84410	+0.93662	+1.05163
11.2	-0.20279	+0.13779	+0.48974	+0.80600	+0.90837	+1.04327
11.4	-0.28210	+0.06257	+0.42785	+0.76518	+0.87742	+1.03266
11.6	-0.35961	-0.01299	+0.36409	+0.72178	+0.84386	+1.01979
11.8	-0.43481	-0.08848	+0.29872	+0.67592	+0.80777	+1.00468
12.0	-0.50723	-0.16349	+0.23204	+0.62775	+0.76923	+0.98733
12.2	-0.57638	-0.23761	+0.16432	+0.57741	+0.72835	+0.96776
12.4	-0.64180	-0.31043	+0.09587	+0.52508	+0.68524	+0.94600
12.6	-0.70307	-0.38156	+0.02700	+0.47092	+0.64002	+0.92209
12.8	-0.75977	-0.45058	-0.04200	+0.41511	+0.59282	+0.89606
13.0	-0.81153	-0.51712	-0.11081	+0.35785	+0.54377	+0.86796
13.2	-0.85799	-0.58081	-0.17912	+0.29932	+0.49303	+0.83784
13.4	-0.89885	-0.64128	-0.24662	+0.23974	+0.44073	+0.80576
13.6	-0.93381	-0.69819	-0.31299	+0.17930	+0.38705	+0.77179
13.8	-0.96265	-0.75121	-0.37793	+0.11823	+0.33214	+0.73599
14.0	-0.98516	-0.80004	-0.44114	+0.05673	+0.27618	+0.69843
14.2	-1.00117	-0.84440	-0.50233	-0.00497	+0.21934	+0.65921
14.4	-1.01058	-0.88404	-0.56121	-0.06666	+0.16179	+0.61840
14.6	-1.01331	-0.91871	-0.61749	-0.12810	+0.10372	+0.57610
14.8	-1.00933	-0.94821	-0.67093	-0.18908	+0.04532	+0.53240
15.0	-0.99866	-0.97238	-0.72125	-0.24937	-0.01323	+0.48741
15.2	-0.98135	-0.99106	-0.76823	-0.30875	-0.07173	+0.44123
15.4	-0.95752	-1.00414	-0.81163	-0.36701	-0.13000	+0.39396
15.6	-0.92731	-1.01154	-0.85125	-0.42392	-0.18785	+0.34572
15.8	-0.89092	-1.01320	-0.88689	-0.47927	-0.24508	+0.29663
16.0	-0.84858	-1.00911	-0.91839	-0.53286	-0.30151	+0.24681
16.2	-0.80057	-0.99928	-0.94558	-0.58449	-0.35695	+0.19637
16.4	-0.74721	-0.98377	-0.96833	-0.63396	-0.41121	+0.14544
16.6	-0.68883	-0.96265	-0.98654	-0.68108	-0.46412	+0.09415
16.8	-0.62584	-0.93603	-1.00009	-0.72568	-0.51549	+0.04262
17.0	-0.55865	-0.90407	-1.00894	-0.76758	-0.56515	-0.00902
17.2	-0.48771	-0.86693	-1.01302	-0.80662	-0.61293	-0.06063
17.4	-0.41348	-0.82483	-1.01231	-0.84266	-0.65867	-0.11209
17.6	-0.33647	-0.77800	-1.00680	-0.87554	-0.70221	-0.16327
17.8	-0.25719	-0.72671	-0.99653	-0.90516	-0.74341	-0.21403
18.0	-0.17618	-0.67124	-0.98153	-0.93138	-0.78213	-0.26425
18.2	-0.09398	-0.61191	-0.96186	-0.95411	-0.81821	-0.31379
18.4	-0.01115	-0.54906	-0.93762	-0.97325	-0.85156	-0.36253
18.6	+0.07176	-0.48305	-0.90891	-0.98873	-0.88204	-0.41034
18.8	+0.15419	-0.41425	-0.87587	-1.00049	-0.90954	-0.45709
19.0	+0.23557	-0.34306	-0.83865	-1.00847	-0.93398	-0.50267
19.2	+0.31535	-0.26989	-0.79743	-1.01264	-0.95527	-0.54695
19.4	+0.39300	-0.19516	-0.75239	-1.01298	-0.97332	-0.58982
19.6	+0.46798	-0.11921	-0.70375	-1.00949	-0.98808	-0.63117
19.8	+0.53978	-0.04275	-0.65175	-1.00217	-0.99949	-0.67088
20.0	+0.60792	+0.03405	-0.59661	-0.99105	-1.00751	-0.70885
20.2	+0.67193	+0.11065	-0.53862	-0.97616	-1.01210	-0.74497
20.4	+0.73136	+0.18660	-0.47804	-0.95756	-1.01324	-0.77916
20.6	+0.78583	+0.26148	-0.41516	-0.93532	-1.01094	-0.81131
20.8	+0.83494	+0.33483	-0.35028	-0.90951	-1.00519	-0.84135
21.0	+0.87836	+0.40624	-0.28372	-0.88024	-0.99600	-0.86919
21.2	+0.91580	+0.47529	-0.21579	-0.84760	-0.98341	-0.89475
21.4	+0.94699	+0.54157	-0.14682	-0.81173	-0.96746	-0.91796
21.6	+0.97173	+0.60470	-0.07715	-0.77275	-0.94819	-0.93877
21.8	+0.98983	+0.66430	-0.00710	-0.73081	-0.92568	-0.95711
22.0	+1.00118	+0.72004	+0.06299	-0.68607	-0.89999	-0.97293
22.2	+1.00568	+0.77157	+0.13276	-0.63871	-0.87120	-0.98619
22.4	+1.00331	+0.81860	+0.20190	-0.58889	-0.83943	-0.99685
22.6	+0.99409	+0.86085	+0.27006	-0.53681	-0.80476	-1.00487
22.8	+0.97806	+0.89808	+0.33691	-0.48267	-0.76733	-1.01024
23.0	+0.95535	+0.93006	+0.40213	-0.42668	-0.72725	-1.01294
23.2	+0.92609	+0.95660	+0.46540	-0.36904	-0.68467	-1.01295
23.4	+0.89049	+0.97754	+0.52642	-0.30998	-0.63972	-1.01028
23.6	+0.84879	+0.99277	+0.58488	-0.24973	-0.59257	-1.00493
23.8	+0.80128	+1.00218	+0.64050	-0.18852	-0.54336	-0.99691
24.0	+0.74827	+1.00573	+0.69301	-0.12658	-0.49228	-0.98625
24.2	+0.69013	+1.00338	+0.74215	-0.06414	-0.43950	-0.97295
24.4	+0.62726	+0.99516	+0.78768	-0.00147	-0.38519	-0.95707
24.6	+0.56009	+0.98109	+0.82938	+0.06122	-0.32955	-0.93863
24.8	+0.48907	+0.96128	+0.86705	+0.12367	-0.27276	-0.91770
25.0	+0.41469	+0.93583	+0.90050	+0.18563	-0.21503	-0.89431

TABLE 6—Continued

r	$k^2=0.055$	$k^2=0.05$	$k^2=0.045$	$k^2=0.035$	$k^2=0.02$
10.0	+1.00547	+0.97058	+0.92638	+0.80756	+0.54333
10.2	+1.01807	+0.98568	+0.94348	+0.82688	+0.56041
10.4	+1.02921	+0.99957	+0.95961	+0.84569	+0.57746
10.6	+1.03885	+1.01220	+0.97473	+0.86393	+0.59448
10.8	+1.04694	+1.02353	+0.98878	+0.88159	+0.61145
11.0	+1.05345	+1.03351	+1.00173	+0.89861	+0.62835
11.2	+1.05834	+1.04211	+1.01355	+0.91497	+0.64516
11.4	+1.06157	+1.04929	+1.02418	+0.93063	+0.66186
11.6	+1.06313	+1.05501	+1.03360	+0.94556	+0.67844
11.8	+1.06297	+1.05926	+1.04178	+0.95973	+0.69489
12.0	+1.06109	+1.06199	+1.04868	+0.97311	+0.71118
12.2	+1.05747	+1.06319	+1.05427	+0.98566	+0.72729
12.4	+1.05209	+1.06284	+1.05854	+0.99737	+0.74321
12.6	+1.04494	+1.06091	+1.06144	+1.00820	+0.75893
12.8	+1.03602	+1.05740	+1.06298	+1.01812	+0.77442
13.0	+1.02532	+1.05229	+1.06312	+1.02712	+0.78967
13.2	+1.01286	+1.04557	+1.06185	+1.03517	+0.80466
13.4	+0.99863	+1.03724	+1.05915	+1.04224	+0.81938
13.6	+0.98265	+1.02730	+1.05502	+1.04831	+0.83380
13.8	+0.96493	+1.01575	+1.04945	+1.05338	+0.84792
14.0	+0.94550	+1.00259	+1.04243	+1.05741	+0.86172
14.2	+0.92438	+0.98784	+1.03396	+1.06039	+0.87518
14.4	+0.90158	+0.97151	+1.02404	+1.06231	+0.88829
14.6	+0.87715	+0.95361	+1.01267	+1.06315	+0.90103
14.8	+0.85113	+0.93415	+0.99986	+1.06290	+0.91338
15.0	+0.82354	+0.91318	+0.98562	+1.06155	+0.92534
15.2	+0.79443	+0.89070	+0.96995	+1.05910	+0.93689
15.4	+0.76385	+0.86674	+0.95287	+1.05553	+0.94801
15.6	+0.73184	+0.84135	+0.93440	+1.05083	+0.95870
15.8	+0.69847	+0.81455	+0.91455	+1.04501	+0.96893
16.0	+0.66378	+0.78639	+0.89335	+1.03807	+0.97870
16.2	+0.62785	+0.75689	+0.87082	+1.02999	+0.98799
16.4	+0.59072	+0.72612	+0.84699	+1.02079	+0.99679
16.6	+0.55247	+0.69410	+0.82189	+1.01046	+1.00509
16.8	+0.51316	+0.66090	+0.79555	+0.99901	+1.01288
17.0	+0.47287	+0.62657	+0.76800	+0.98644	+1.02015
17.2	+0.43167	+0.59116	+0.73928	+0.97277	+1.02688
17.4	+0.38964	+0.55472	+0.70943	+0.95799	+1.03307
17.6	+0.34686	+0.51733	+0.67849	+0.94213	+1.03870
17.8	+0.30340	+0.47903	+0.64651	+0.92520	+1.04378
18.0	+0.25935	+0.43989	+0.61352	+0.90720	+1.04828
18.2	+0.21479	+0.39999	+0.57958	+0.88816	+1.05220
18.4	+0.16982	+0.35938	+0.54474	+0.86808	+1.05553
18.6	+0.12451	+0.31813	+0.50905	+0.84700	+1.05827
18.8	+0.07895	+0.27633	+0.47256	+0.82493	+1.06041
19.0	+0.03324	+0.23403	+0.43533	+0.80189	+1.06193
19.2	-0.01253	+0.19132	+0.39740	+0.77791	+1.06285
19.4	-0.05829	+0.14827	+0.35885	+0.75300	+1.06314
19.6	-0.10392	+0.10495	+0.31973	+0.72720	+1.06281
19.8	-0.14935	+0.06144	+0.28011	+0.70054	+1.06185
20.0	-0.19448	+0.01782	+0.24003	+0.67303	+1.06026
20.2	-0.23922	-0.02583	+0.19957	+0.64472	+1.05803
20.4	-0.28348	-0.06943	+0.15879	+0.61564	+1.05517
20.6	-0.32718	-0.11291	+0.11776	+0.58581	+1.05166
20.8	-0.37021	-0.15619	+0.07653	+0.55527	+1.04751
21.0	-0.41250	-0.19918	+0.03518	+0.52405	+1.04271
21.2	-0.45396	-0.24181	-0.00622	+0.49220	+1.03727
21.4	-0.49450	-0.28399	-0.04762	+0.45974	+1.03119
21.6	-0.53403	-0.32566	-0.08894	+0.42673	+1.02446
21.8	-0.57249	-0.36674	-0.13011	+0.39318	+1.01708
22.0	-0.60978	-0.40714	-0.17107	+0.35916	+1.00907
22.2	-0.64583	-0.44680	-0.21175	+0.32469	+1.00041
22.4	-0.68057	-0.48563	-0.25208	+0.28982	+0.99112
22.6	-0.71391	-0.52357	-0.29201	+0.25459	+0.98119
22.8	-0.74580	-0.56055	-0.33145	+0.21904	+0.97063
23.0	-0.77616	-0.59649	-0.37034	+0.18322	+0.95944
23.2	-0.80494	-0.63133	-0.40863	+0.14717	+0.94763
23.4	-0.83206	-0.66500	-0.44624	+0.11094	+0.93520
23.6	-0.85747	-0.69744	-0.48311	+0.07457	+0.92216
23.8	-0.88112	-0.72858	-0.51918	+0.03810	+0.90852
24.0	-0.90296	-0.75837	-0.55439	+0.00159	+0.89427
24.2	-0.92293	-0.78675	-0.58868	-0.03493	+0.87944
24.4	-0.94100	-0.81366	-0.62199	-0.07140	+0.86402
24.6	-0.95713	-0.83906	-0.65427	-0.10778	+0.84803
24.8	-0.97128	-0.86288	-0.68545	-0.14403	+0.83147
25.0	-0.98342	-0.88510	-0.71549	-0.18009	+0.81436