

UNTUK MENG

konsentrasi	Ikan Uji	Mati	Proporsi	log Konsentrasi	Probit Empiris
x	n	r	p%	log x	PE
10,2	50	44	88%	1,01	6,2
7,7	49	42	86%	0,89	6,07
5,1	46	24	52%	0,71	5,1
3,8	48	16	33%	0,58	4,6
2,6	50	6	12%	0,41	3,8
Jumlah					

xrerata = 0,54 0,72 5,14
 sd = 0,33 0,24 1

Metode A	Analisis Probit	Intercept (a) =	2,13
		Slope (b) =	4,18
		m =	0,686
		LC50 =	4,86

Metode B	Regresi	b =	4,2
	Probit	a =	2,24

x rata-rata =	0,663
y rata-rata =	5,030
$\sum yy =$	68,971
$\sum xx =$	4,104
$\sum xy =$	16,699
b =	4,069
Y =	2,330
Chi-square =	1,023
V(y) =	0,008
V(b) =	4,104
m =	0,656
LC50 =	4,530
V(m) =	0,001
Seb =	2,026
Sem =	0,023

METODE ANALISIS PROBIT

PERHITUNG NILAI LC 50 PADA SUATU UJI TOKSISITAS

Oleh : Sumoharjo, S.Pi.,M.Si

Expected Probit		Weighting Coeff.	Working Probit	nw	nwx	nwy
Y	Z	w	y			
6,5	0,129	0,159	6,14	7,94	8,01	48,74
6,0	0,246	0,494	6,05	24,19	21,45	146,31
5,2	0,389	0,606	5,23	27,87	19,72	145,70
4,7	0,380	0,650	4,69	31,20	18,09	146,24
4,0	0,240	0,545	3,99	27,24	11,30	108,71
		2,5	26,1	118,4	78,57	595,704

5,28

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TABLE II. The Weibull

Y	0-0	0-1	0-2	0-3
1	0-001	0-001	0-001	0-001
2	0-015	0-019	0-025	0-031
3	0-131	0-154	0-180	0-208
4	0-439	0-471	0-503	0-535
5	0-637	0-634	0-627	0-616
6	0-439	0-405	0-370	0-336
7	0-131	0-110	0-092	0-076
8	0-015	0-011	0-008	0-006

Rumus-Rumus

$$x \text{ rata-rata} = \frac{\sum nwx}{\sum nw}$$

$$y \text{ rata-rata} = \frac{\sum nwy}{\sum nw}$$

$$\sum yy = \sum nwy^2 - \frac{(\sum nwy)^2}{\sum nw}$$

$$\sum xx = \sum nwx^2 - \frac{(\sum nwx)^2}{\sum nw}$$

$$\sum xy = \sum nwx y - \frac{(\sum nwx \cdot \sum nwy)}{\sum nw}$$

$$b = \frac{\sum xy}{\sum xx}$$

$$Y = y \text{ rata-rata} - b x \text{ rata-rata} + b x$$

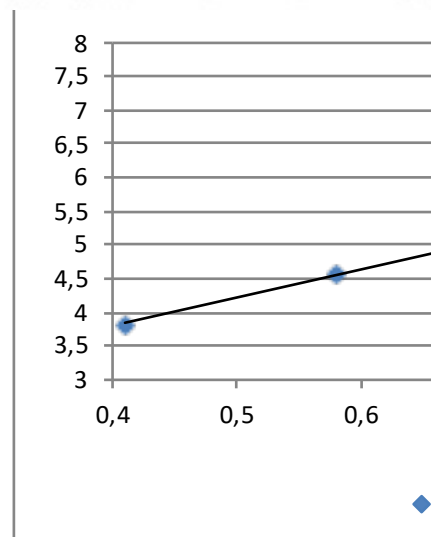
$$\text{Chi-square} = \frac{\sum yy - (\sum xy)^2 / \sum xx}{\sum nw}$$

$$Vb = \frac{1}{\sum nw - \frac{(\sum nwx)^2}{\sum nw}}$$

$$m = x - \frac{5 + y}{b}$$

$$V(m) = \frac{1}{b^2} [V_y + (m - x \text{ rata-rata})^2 V_b]$$

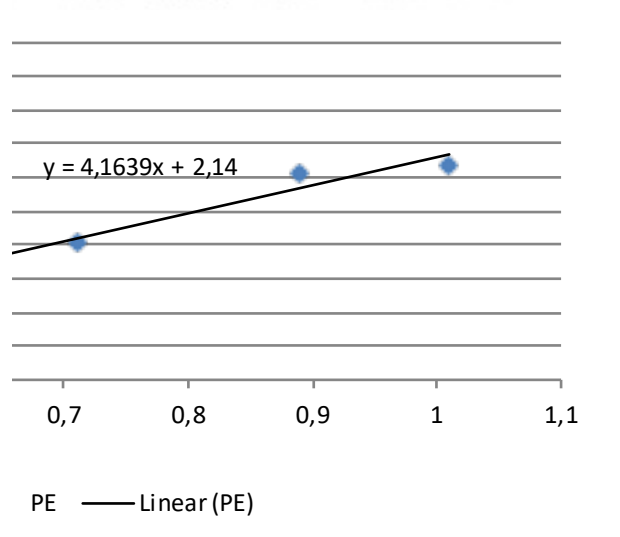
$$\text{Seb} = V_b^{1/2}$$



nwx2	nwxy	nwy2
8,08	49,16	299,14
19,01	129,71	884,91
13,95	103,09	761,69
10,49	84,79	685,54
4,69	45,11	433,86
56,220	411,856	3065,143

ighting Coefficient, $w = Z^2/PQ$

	0.4	0.5	0.6	0.7	0.8	0.8
2	0.002	0.003	0.005	0.006	0.008	0.017
1	0.040	0.050	0.062	0.076	0.092	0.110
8	0.238	0.269	0.302	0.336	0.370	0.405
2	0.558	0.581	0.601	0.616	0.627	0.634
6	0.601	0.581	0.558	0.532	0.503	0.471
6	0.302	0.269	0.238	0.208	0.180	0.154
6	0.062	0.050	0.040	0.031	0.025	0.019
6	0.005	0.003	0.002	0.002	0.001	0.001



UNTUK MENG

konsentrasi	Ikan Uji	Mati	Proporsi	log Konsentrasi	Probit Empiris
x	n	r	p%	log x	PE
99,68	30	25	83,3%	2,00	6,0
62,94	30	22	73,3%	1,80	5,6
39,74	30	16	53,3%	1,60	5,1
25,09	30	7	23,3%	1,40	4,3
15,84	30	3	10,0%	1,20	3,7
Jumlah					

243,29 xrerata = 0,49 1,60 5
 sd = 0,31 0,32 1

Metode A	Analisis Probit	Intercept (a) = 0,25
		Slope (b) = 2,93
		m = 1,622
		LC50 = 41,89

Metode B	Regresi	b = 3,2
	Probit	a = -0,20

x rata-rata =	1,625
y rata-rata =	5,028
$\sum yy =$	35,891
$\sum xx =$	4,028
$\sum xy =$	11,874
b =	2,948
Y =	0,237
Chi-square =	0,892
V(y) =	0,014
V(b) =	4,028
m =	1,616
LC50 =	41,291
V(m) =	0,002
Seb =	2,007
Sem =	0,041

METODE ANALISIS PROBIT

PERHITUNG NILAI LC 50 PADA SUATU UJI TOKSISITAS

Oleh : Sumoharjo, S.Pi.,M.Si

Expected Probit		Weighting Coeff.	Working Probit	nw	nwx	nwy
Y	Z	w	y			
6,1	0,212	0,323	5,94	9,70	19,38	57,62
5,5	0,353	0,639	5,61	19,16	34,47	107,47
4,9	0,395	0,627	5,08	18,82	30,10	95,55
4,2	0,296	0,490	4,26	14,71	20,59	62,71
3,6	0,149	0,246	3,72	7,38	8,85	27,45
		2,3	24,6	69,8	113,40	350,792

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TABLE II. The We

Y	0-0	0-1	0-2	0-3
1	0-001	0-001	0-001	0-00
2	0-015	0-019	0-025	0-03
3	0-131	0-154	0-180	0-20
4	0-439	0-471	0-503	0-53
5	0-637	0-634	0-627	0-61
6	0-439	0-405	0-370	0-33
7	0-131	0-110	0-092	0-07
8	0-015	0-011	0-008	0-00

Rumus-Rumus

$$x \text{ rata-rata} = \frac{\sum nwx}{\sum nw}$$

$$y \text{ rata-rata} = \frac{\sum nwy}{\sum nw}$$

$$\sum yy = \sum nwy^2 - \frac{(\sum nwy)^2}{\sum nw}$$

$$\sum xx = \sum nwx^2 - \frac{(\sum nwx)^2}{\sum nw}$$

$$\sum xy = \sum nwx y - \frac{(\sum nwy * \sum nwx)}{\sum nw}$$

$$b = \frac{\sum xy}{\sum xx}$$

$$Y = y \text{ rata} - b x \text{ rata} + b x$$

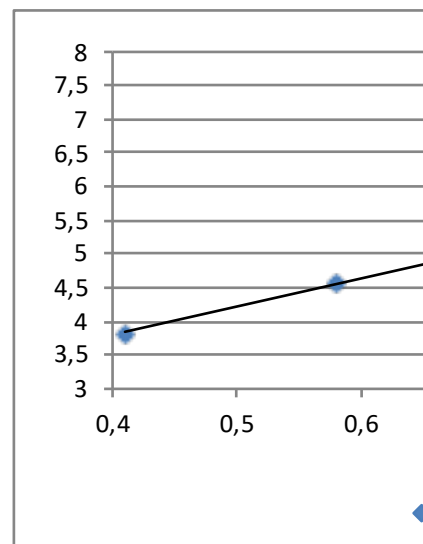
$$\text{Chi-square} = \frac{\sum yy - (\sum xy)^2 / \sum xx}{\sum nw}$$

$$Vb = \frac{1}{(\sum nwx^2 - (\sum nwx)^2 / \sum nw)}$$

$$m = x - (5 + y) / b$$

$$V(m) = \frac{1}{b^2} [V_y + (m - x \text{ rata} - y \text{ rata})^2 V_b]$$

$$\text{Seb} = V_b^{1/2}$$



nwx2	nwxy	nwy2
38,73	115,16	342,38
62,01	193,33	602,80
48,14	152,80	485,00
28,82	87,76	267,26
10,62	32,93	102,08
188,322	581,983	1799,514

ighting Coefficient, $w = Z^2/PQ$

	0.4	0.5	0.6	0.7	0.8	0.9
0.2	0.002	0.003	0.005	0.006	0.008	0.011
0.3	0.040	0.050	0.062	0.076	0.092	0.110
0.4	0.238	0.269	0.302	0.336	0.370	0.405
0.5	0.558	0.581	0.601	0.616	0.627	0.634
0.6	0.601	0.581	0.558	0.532	0.503	0.471
0.7	0.302	0.269	0.238	0.208	0.180	0.154
0.8	0.062	0.050	0.040	0.031	0.025	0.019
0.9	0.005	0.003	0.002	0.002	0.001	0.001

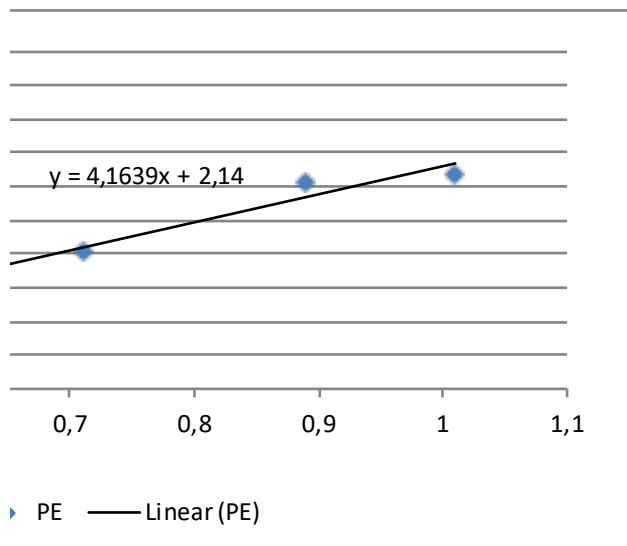


TABLE IV (cont.)
(Y = 4.0-4.9; 0-50% kill)

% kill	Expected probit, Y									
	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9
0	3.344	3.408	3.469	3.525	3.577	3.624	3.664	3.698	3.724	3.741
1	3.386	3.446	3.503	3.557	3.607	3.652	3.691	3.724	3.750	3.766
2	.427	.487	.538	.589	.637	.680	.719	.751	.775	.791
3	.468	.521	.572	.621	.667	.709	.746	.777	.801	.816
4	.510	.559	.607	.653	.697	.737	.773	.803	.826	.841
5	.551	.596	.641	.685	.727	.766	.800	.829	.852	.867
6	3.592	3.634	3.676	3.717	3.757	3.794	3.827	3.856	3.878	3.892
7	.634	.671	.710	.749	.787	.822	.854	.882	.903	.917
8	.675	.709	.745	.781	.817	.851	.882	.908	.929	.942
9	.716	.747	.779	.813	.847	.879	.909	.934	.954	.967
10	.758	.784	.814	.845	.877	.908	.936	.960	.980	.993
11	3.799	3.822	3.848	3.877	3.907	3.936	3.963	3.987	4.005	4.018
12	.840	.859	.883	.909	.937	.964	.990	4.013	.031	.043
13	.882	.897	.917	.941	.967	.993	4.017	.039	.057	.068
14	.923	.934	.952	.973	.997	4.021	.044	.065	.082	.093
15	.964	.972	.986	4.005	4.027	.050	.072	.092	.108	.119
16	4.006	4.010	4.021	4.038	4.057	4.078	4.099	4.118	4.133	4.144
17	.047	.047	.056	.070	.087	.106	.126	.144	.159	.169
18	.088	.085	.090	.102	.117	.135	.153	.170	.184	.194
19	.130	.122	.125	.134	.147	.163	.180	.196	.210	.219
20	.171	.160	.159	.166	.177	.192	.207	.223	.236	.245
21	4.212	4.198	4.194	4.198	4.207	4.220	4.235	4.249	4.261	4.270
22	.253	.235	.228	.230	.237	.248	.262	.275	.287	.295
23	.295	.273	.263	.262	.267	.277	.289	.301	.312	.320
24	.336	.310	.297	.294	.297	.305	.316	.327	.338	.345
25	.377	.348	.332	.326	.327	.334	.343	.354	.363	.370
26	4.419	4.385	4.366	4.358	4.357	4.362	4.370	4.380	4.389	4.396
27	.460	.423	.401	.390	.387	.391	.397	.406	.415	.421
28	.501	.461	.435	.422	.417	.419	.425	.432	.440	.446
29	.543	.498	.470	.454	.447	.447	.452	.459	.466	.471
30	.584	.536	.504	.486	.477	.476	.479	.485	.491	.496
31	4.625	4.573	4.539	4.518	4.507	4.504	4.506	4.511	4.517	4.522
32	.667	.611	.573	.550	.537	.533	.533	.537	.542	.547
33	.708	.649	.608	.582	.567	.561	.560	.563	.568	.572
34	.749	.686	.642	.614	.597	.589	.588	.590	.594	.597
35	.791	.724	.677	.646	.627	.618	.615	.616	.619	.622
36	4.832	4.761	4.711	4.678	4.657	4.646	4.642	4.642	4.645	4.648
37	.873	.799	.746	.710	.687	.675	.669	.668	.670	.673
38	.915	.836	.780	.742	.717	.703	.696	.695	.696	.698
39	.956	.874	.815	.774	.747	.731	.723	.721	.721	.723
40	.997	.912	.849	.806	.777	.760	.750	.747	.747	.748
41	5.039	4.949	4.884	4.838	4.807	4.788	4.778	4.773	4.773	4.774
42	.080	.987	.918	.870	.837	.817	.805	.799	.798	.799
43	.121	5.024	.953	.902	.867	.845	.832	.826	.824	.824
44	.163	.062	.988	.934	.897	.873	.859	.852	.849	.849
45	.204	.899	5.022	.966	.927	.902	.886	.876	.875	.874
46	5.245	5.137	5.057	4.998	4.957	4.930	4.913	4.904	4.900	4.900
47	.287	.175	.091	5.030	.987	.959	.941	.931	.926	.925
48	.328	.212	.126	.062	5.017	.987	.968	.957	.952	.950
49	.369	.250	.160	.094	.047	5.015	.995	.983	.977	.975
50	.411	.287	.195	.126	.078	.044	5.022	5.009	5.003	5.000

TABLE IV (cont.)
(Y-40-49; 51-100% kill)

% kill	Expected probit, Y									
	4-0	4-1	4-2	4-3	4-4	4-5	4-6	4-7	4-8	4-9
51	5-452	5-325	5-229	5-158	5-108	5-072	5-049	5-035	5-028	5-025
52	·493	·363	·264	·190	·138	·101	·076	·062	·054	·051
53	·535	·400	·298	·222	·168	·129	·103	·088	·079	·076
54	·576	·438	·333	·254	·198	·157	·131	·114	·105	·101
55	·617	·475	·367	·286	·228	·186	·158	·140	·131	·128
56	5-659	5-513	5-402	5-318	5-258	5-214	5-185	5-167	5-156	5-151
57	·700	·550	·436	·351	·288	·243	·212	·193	·182	·177
58	·741	·588	·471	·383	·318	·271	·239	·219	·207	·202
59	·783	·626	·505	·415	·348	·299	·266	·245	·233	·227
60	·824	·663	·540	·447	·378	·328	·294	·271	·258	·252
61	5-865	5-701	5-574	5-479	5-408	5-356	5-321	5-298	5-284	5-277
62	·907	·738	·609	·511	·438	·385	·348	·324	·310	·303
63	·948	·776	·643	·543	·468	·413	·375	·350	·335	·328
64	·989	·814	·678	·575	·498	·441	·402	·376	·361	·353
65	6-031	·851	·712	·607	·528	·470	·429	·402	·386	·378
66	6-072	5-889	5-747	5-639	5-558	5-498	5-456	5-429	5-412	5-403
67	·113	·926	·781	·671	·588	·527	·484	·455	·437	·429
68	·155	·964	·816	·703	·618	·555	·511	·481	·463	·454
69	·196	6-001	·851	·735	·648	·583	·538	·507	·489	·479
70	·237	·039	·885	·767	·678	·612	·565	·534	·514	·504
71	6-279	6-077	5-920	5-799	5-708	5-640	5-592	5-560	5-540	5-529
72	·320	·114	·954	·831	·738	·669	·619	·586	·565	·555
73	·361	·152	·989	·863	·768	·697	·647	·612	·591	·580
74	·402	·189	6-023	·895	·798	·725	·674	·638	·617	·605
75	·444	·227	·058	·927	·828	·754	·701	·665	·642	·630
76	6-485	6-265	6-092	5-959	5-858	5-782	5-728	5-691	5-668	5-655
77	·526	·302	·127	·991	·888	·811	·755	·717	·693	·680
78	·568	·340	·161	6-023	·918	·839	·782	·743	·719	·706
79	·609	·377	·196	·055	·948	·868	·809	·770	·744	·731
80	·650	·415	·230	·087	·978	·896	·837	·796	·770	·756
81	6-692	6-452	6-265	6-119	6-008	5-924	5-864	5-822	5-796	5-781
82	·733	·490	·299	·151	·038	·953	·891	·848	·821	·806
83	·774	·528	·334	·183	·068	·981	·918	·874	·847	·832
84	·816	·565	·368	·215	·098	6-010	·945	·901	·872	·857
85	·857	·603	·403	·247	·128	·038	·972	·927	·898	·882
86	6-898	6-640	6-437	6-279	6-158	6-066	6-000	5-953	5-923	5-907
87	·940	·678	·472	·311	·188	·095	·027	·979	·949	·932
88	·981	·716	·506	·343	·218	·123	·054	6-006	·975	·958
89	7-022	·753	·541	·375	·248	·152	·081	·032	6-000	·983
90	·064	·791	·575	·407	·278	·180	·108	·058	·026	6-006
91	7-105	6-828	6-610	6-439	6-308	6-208	6-135	6-084	6-051	6-033
92	·146	·866	·644	·471	·338	·237	·162	·110	·077	·058
93	·188	·903	·679	·503	·368	·265	·190	·137	·102	·084
94	·229	·941	·713	·535	·398	·294	·217	·163	·128	·109
95	·270	·979	·748	·567	·428	·322	·244	·189	·154	·134
96	7-312	7-016	6-783	6-600	6-458	6-350	6-271	6-215	6-179	6-159
97	·353	·054	·817	·632	·488	·379	·298	·242	·205	·184
98	·394	·091	·852	·664	·518	·407	·325	·268	·230	·210
99	·436	·129	·886	·696	·548	·436	·353	·294	·256	·235
100	·477	·166	·921	·728	·578	·464	·380	·320	·281	·260

TABLE IV (cont.)

(Y = 5-0-5-9; 0-50% kill)

% kill	Expected probit, Y									
	5-0	5-1	5-2	5-3	5-4	5-5	5-6	5-7	5-8	5-9
0	3-747	3-740	3-719	3-680	3-620	3-536	3-422	3-272	3-079	2-834
1	3-772	3-765	3-744	3-706	3-647	3-564	3-452	3-304	3-114	2-871
2	-797	-790	-770	-732	-675	-593	-482	-336	-148	-909
3	-822	-816	-795	-758	-702	-621	-512	-368	-183	-946
4	-847	-841	-821	-785	-729	-650	-542	-400	-217	-984
5	-872	-866	-846	-811	-756	-678	-572	-433	-252	3-021
6	3-897	3-891	3-872	3-837	3-783	3-706	3-602	3-465	3-287	3-059
7	-922	-916	-898	-863	-810	-735	-632	-497	-321	-097
8	-947	-942	-923	-890	-838	-763	-662	-529	-356	-134
9	-972	-967	-949	-916	-865	-792	-692	-561	-390	-172
10	-997	-992	-974	-942	-892	-820	-722	-593	-425	-209
11	4-022	4-017	4-000	3-968	3-919	3-848	3-752	3-625	3-459	3-247
12	-047	-042	-025	-994	-946	-877	-782	-657	-494	-284
13	-073	-068	-051	4-021	-973	-905	-812	-689	-528	-322
14	-098	-093	-077	-047	4-000	-934	-842	-721	-563	-360
15	-123	-118	-102	-073	-028	-962	-872	-753	-597	-397
16	4-148	4-143	4-128	4-099	4-055	3-990	3-902	3-785	3-632	3-435
17	-173	-168	-153	-126	-082	4-019	-932	-817	-666	-472
18	-198	-194	-179	-152	-109	-047	-962	-849	-701	-510
19	-223	-219	-204	-178	-136	-076	-992	-881	-735	-548
20	-248	-244	-230	-204	-163	-104	4-022	-913	-770	-585
21	4-273	4-269	4-256	4-230	4-191	4-132	4-052	3-945	3-804	3-623
22	-298	-294	-281	-257	-218	-161	-082	-977	-839	-660
23	-323	-320	-307	-283	-245	-189	-112	4-009	-873	-698
24	-348	-345	-332	-309	-272	-218	-142	-041	-908	-735
25	-373	-370	-358	-335	-299	-246	-172	-073	-942	-773
26	4-398	4-395	4-383	4-362	4-328	4-275	4-202	4-105	3-977	3-811
27	-423	-420	-409	-388	-353	-303	-232	-137	4-011	-848
28	-449	-445	-435	-414	-381	-331	-262	-169	-046	-886
29	-474	-471	-460	-440	-408	-360	-292	-201	-080	-923
30	-499	-496	-486	-466	-435	-388	-322	-233	-115	-961
31	4-524	4-521	4-511	4-493	4-462	4-417	4-352	4-265	4-149	3-999
32	-549	-546	-537	-519	-489	-445	-382	-297	-184	4-036
33	-574	-571	-563	-545	-516	-473	-412	-329	-219	-074
34	-599	-597	-588	-571	-544	-502	-442	-361	-253	-111
35	-624	-622	-614	-598	-571	-530	-472	-393	-288	-149
36	4-649	4-647	4-639	4-624	4-598	4-559	4-502	4-425	4-322	4-186
37	-674	-672	-665	-650	-625	-587	-532	-457	-357	-224
38	-699	-697	-690	-676	-652	-615	-562	-489	-391	-262
39	-724	-723	-716	-702	-679	-644	-592	-521	-426	-299
40	-749	-748	-742	-729	-706	-672	-622	-553	-460	-337
41	4-774	4-773	4-767	4-755	4-734	4-701	4-652	4-585	4-495	4-374
42	-799	-798	-793	-781	-761	-729	-682	-617	-529	-412
43	-825	-823	-818	-807	-788	-757	-712	-649	-564	-450
44	-850	-849	-844	-833	-815	-786	-742	-682	-598	-487
45	-875	-874	-869	-860	-842	-814	-772	-714	-633	-525
46	4-900	4-899	4-895	4-886	4-869	4-843	4-802	4-746	4-667	4-562
47	-925	-924	-921	-912	-897	-871	-832	-778	-702	-600
48	-950	-949	-946	-938	-924	-899	-862	-810	-736	-637
49	-975	-975	-972	-965	-951	-928	-892	-842	-771	-675
50	5-000	5-000	-997	-991	-978	-956	-922	-874	-805	-713

TABLE IV (cont.)
($Y = 5.0-5.9$; 51-100% kill)

% kill	Expected probit, Y									
	5-0	5-1	5-2	5-3	5-4	5-5	5-6	5-7	5-8	5-9
51	5-025	5-025	5-023	5-017	5-005	4-985	4-953	4-906	4-840	4-750
52	-050	-050	-048	-043	-032	5-013	-983	-938	-874	-788
53	-075	-075	-074	-069	-059	-041	5-013	-970	-909	-825
54	-100	-100	-100	-096	-087	-070	-043	5-002	-943	-863
55	-125	-126	-125	-122	-114	-098	-073	-034	-978	-901
56	5-150	5-151	5-151	5-148	5-141	5-127	5-103	5-066	5-012	4-938
57	-175	-176	-176	-174	-168	-155	-133	-098	-047	-976
58	-201	-201	-202	-201	-195	-183	-163	-130	-062	5-013
59	-226	-226	-227	-227	-222	-212	-193	-162	-116	-051
60	-251	-252	-253	-253	-250	-240	-223	-194	-151	-088
61	5-276	5-277	5-279	5-279	5-277	5-269	5-253	5-226	5-185	5-126
62	-301	-302	-304	-305	-304	-297	-283	-258	-220	-164
63	-326	-327	-330	-332	-331	-325	-313	-290	-254	-201
64	-351	-352	-355	-358	-358	-354	-343	-322	-289	-239
65	-376	-376	-381	-384	-385	-382	-373	-354	-323	-276
66	5-401	5-403	5-406	5-410	5-412	5-411	5-403	5-386	5-358	5-314
67	-426	-428	-432	-437	-440	-439	-433	-418	-392	-351
68	-451	-453	-458	-463	-467	-467	-463	-450	-427	-389
69	-476	-478	-483	-489	-494	-496	-493	-482	-461	-427
70	-501	-504	-509	-515	-521	-524	-523	-514	-496	-464
71	5-526	5-529	5-534	5-541	5-548	5-553	5-553	5-546	5-530	5-502
72	-551	-554	-560	-568	-575	-581	-583	-578	-565	-539
73	-577	-579	-585	-594	-603	-609	-613	-610	-599	-577
74	-602	-604	-611	-620	-630	-638	-643	-642	-634	-615
75	-627	-630	-637	-646	-657	-666	-673	-674	-668	-652
76	5-652	5-655	5-662	5-673	5-684	5-695	5-703	5-706	5-703	5-690
77	-677	-680	-686	-699	-711	-723	-733	-738	-737	-727
78	-702	-705	-713	-725	-738	-752	-763	-770	-772	-765
79	-727	-730	-739	-751	-765	-780	-793	-802	-806	-802
80	-752	-755	-764	-777	-793	-808	-823	-834	-841	-840
81	5-777	5-781	5-790	5-804	5-820	5-837	5-853	5-866	5-875	5-878
82	-802	-806	-816	-830	-847	-865	-883	-896	-910	-915
83	-827	-831	-841	-856	-874	-894	-913	-930	-944	-953
84	-852	-856	-867	-882	-901	-922	-943	-962	-979	-990
85	-877	-881	-892	-908	-928	-950	-973	-995	6-014	6-028
86	5-902	5-907	5-918	5-935	5-956	5-979	6-003	6-027	6-048	6-066
87	-927	-932	-943	-961	-983	6-007	-033	-059	-063	-103
88	-953	-957	-969	-987	6-010	-036	-063	-091	-117	-141
89	-978	-982	-995	6-013	-037	-064	-093	-123	-152	-178
90	6-003	6-007	6-020	-040	-064	-092	-123	-155	-186	-216
91	6-028	6-033	6-046	6-066	6-091	6-121	6-153	6-187	6-221	6-253
92	-053	-058	-071	-092	-118	-149	-183	-219	-255	-291
93	-078	-083	-097	-118	-146	-178	-213	-251	-290	-329
94	-103	-108	-122	-144	-173	-206	-243	-283	-324	-366
95	-128	-133	-148	-171	-200	-234	-273	-315	-359	-404
96	6-153	6-159	6-174	6-197	6-227	6-263	6-303	6-347	6-393	6-441
97	-178	-184	-199	-223	-254	-291	-333	-379	-428	-479
98	-203	-209	-225	-249	-281	-320	-363	-411	-462	-517
99	-228	-234	-250	-276	-309	-348	-393	-443	-497	-554
100	-253	-259	-276	-302	-336	-376	-423	-475	-531	-592

TABLE IV (cont.)

(Y = 6-0-6-9; 0-50% kill)

% kill	Expected probit, Y									
	6-0	6-1	6-2	6-3	6-4	6-5	6-6	6-7	6-8	6-9
0	2-523	2-132	1-643	1-030	0-261	—	—	—	—	—
1	2-564	2-178	1-694	1-088	0-327	—	—	—	—	—
2	-606	-224	-746	-146	-394	—	—	—	—	—
3	-647	-270	-797	-205	-461	—	—	—	—	—
4	-688	-316	-849	-263	-528	—	—	—	—	—
5	-730	-362	-900	-321	-595	—	—	—	—	—
6	2-771	2-408	1-952	1-380	0-661	—	—	—	—	—
7	-812	-454	2-003	-438	-728	—	—	—	—	—
8	-854	-500	-055	-496	-795	—	—	—	—	—
9	-895	-546	-106	-555	-862	—	—	—	—	—
10	-936	-591	-158	-613	-928	0-067	—	—	—	—
11	2-978	2-637	2-209	1-671	0-995	0-144	—	—	—	—
12	3-019	-683	-261	-730	1-062	-221	—	—	—	—
13	-060	-729	-312	-788	-129	-299	—	—	—	—
14	-102	-775	-364	-846	-196	-376	—	—	—	—
15	-143	-821	-415	-905	-262	-453	—	—	—	—
16	3-184	-2-867	2-467	1-963	1-329	0-530	—	—	—	—
17	-226	-913	-518	2-022	-396	-607	—	—	—	—
18	-267	-959	-570	-060	-463	-685	—	—	—	—
19	-308	3-005	-621	-138	-530	-762	—	—	—	—
20	-350	-050	-673	-197	-596	-839	—	—	—	—
21	3-391	3-096	2-724	2-255	1-663	0-916	—	—	—	—
22	-432	-142	-776	-313	-730	-993	0-062	—	—	—
23	-474	-186	-827	-372	-797	1-071	-152	—	—	—
24	-515	-234	-879	-430	-864	-148	-243	—	—	—
25	-556	-280	-930	-488	-930	-225	-333	—	—	—
26	3-598	3-326	2-982	2-547	1-997	1-302	0-423	—	—	—
27	-639	-372	3-033	-605	2-064	-379	-513	—	—	—
28	-680	-418	-085	-663	-131	-457	-603	—	—	—
29	-721	-464	-136	-722	-197	-534	-693	—	—	—
30	-763	-509	-188	-780	-264	-611	-784	—	—	—
31	3-804	3-555	3-239	2-838	2-331	1-688	0-874	—	—	—
32	-845	-601	-291	-897	-398	-766	-964	—	—	—
33	-887	-647	-342	-955	-465	-843	1-054	0-050	—	—
34	-928	-693	-394	3-014	-531	-920	-144	-156	—	—
35	-969	-739	-445	-072	-598	-997	-234	-262	—	—
36	4-011	3-785	3-497	3-130	2-665	2-074	1-324	0-369	—	—
37	-052	-831	-548	-189	-732	-152	-415	-475	—	—
38	-093	-877	-600	-247	-799	-229	-505	-581	—	—
39	-135	-923	-651	-305	-865	-306	-595	-688	—	—
40	-176	-969	-703	-364	-932	-383	-685	-794	—	—
41	4-217	4-014	3-754	3-422	2-999	2-460	1-775	0-900	—	—
42	-259	-060	-806	-480	3-066	-538	-865	1-007	—	—
43	-300	-106	-857	-539	-132	-615	-955	-113	0-035	—
44	-341	-152	-909	-597	-199	-692	2-046	-219	-162	—
45	-383	-198	-960	-655	-266	-769	-136	-326	-289	—
46	4-424	4-244	4-012	3-714	3-333	2-846	2-226	1-432	0-415	—
47	-465	-290	-063	-772	-400	-924	-316	-538	-542	—
48	-507	-336	-115	-830	-466	3-001	-406	-645	-669	—
49	-548	-382	-166	-889	-533	-078	-496	-751	-795	—
50	-589	-428	-218	-947	-600	-155	-586	-857	-922	—

TABLE IV (cont.)
(Y = 6-0-6-9; 51-100% kill)

% kill	Expected probit, Y									
	6-0	6-1	6-2	6-3	6-4	6-5	6-6	6-7	6-8	
51	4-631	4-473	4-269	4-006	3-667	3-233	2-677	1-964	1-049	
52	-672	-519	-321	-064	-734	-310	-767	2-070	-175	0
53	-713	-565	-372	-122	-800	-387	-857	-176	-302	
54	-755	-611	-424	-181	-867	-464	-947	-283	-429	
55	-796	-657	-475	-239	-934	-541	3-037	-389	-555	
56	4-837	4-703	4-527	4-297	4-001	3-619	3-127	2-495	1-682	0
57	-879	-749	-578	-356	-068	-696	-218	-602	-809	
58	-920	-795	-630	-414	-134	-773	-308	-708	-935	
59	-961	-841	-681	-472	-201	-850	-398	-814	2-062	1
60	5-003	-887	-733	-531	-268	-927	-488	-921	-189	
61	5-044	4-932	4-784	4-589	4-335	4-005	3-578	3-027	2-315	1
62	-085	-978	-836	-647	-401	-082	-668	-133	-442	
63	-127	5-024	-887	-706	-468	-159	-758	-240	-569	
64	-168	-070	-939	-764	-535	-236	-849	-346	-695	
65	-209	-116	-990	-823	-602	-313	-939	-452	-822	2
66	5-251	5-162	5-042	4-881	4-669	4-391	4-029	3-559	2-949	2
67	-292	-208	-093	-939	-735	-468	-119	-665	3-075	
68	-333	-254	-145	-998	-802	-545	-209	-771	-202	
69	-375	-300	-196	5-056	-869	-622	-299	-878	-329	
70	-416	-346	-248	-114	-936	-700	-390	-984	-455	
71	5-457	5-392	5-299	5-173	5-003	4-777	4-480	4-090	3-582	2
72	-499	-437	-351	-231	-069	-854	-570	-197	-709	3
73	-540	-483	-402	-289	-136	-931	-660	-303	-835	
74	-581	-529	-454	-348	-203	5-008	-750	-409	-962	
75	-623	-575	-505	-406	-270	-086	-840	-516	4-089	
76	5-664	5-621	5-557	5-464	5-336	5-163	4-930	4-622	4-215	3
77	-705	-667	-608	-523	-403	-240	5-021	-728	-342	
78	-747	-713	-660	-581	-470	-317	-111	-835	-469	
79	-788	-759	-711	-639	-537	-394	-201	-941	-595	4
80	-829	-805	-763	-698	-604	-472	-291	5-047	-722	
81	5-870	5-851	5-814	5-756	5-670	5-549	5-381	5-154	4-849	4
82	-912	-896	-866	-815	-737	-626	-471	-260	-975	
83	-953	-942	-917	-873	-804	-703	-561	-366	5-102	
84	-994	-988	-969	-931	-871	-780	-652	-473	-229	
85	6-036	6-034	6-020	-990	-938	-858	-742	-579	-355	5
86	6-077	6-080	6-072	6-048	6-004	5-935	5-832	5-685	5-482	5
87	-118	-126	-123	-106	-071	6-012	-922	-792	-609	
88	-160	-172	-175	-165	-138	-089	6-012	-898	-735	
89	-201	-218	-226	-223	-205	-166	-102	6-004	-862	
90	-242	-264	-278	-281	-272	-244	-192	-111	-988	
91	6-284	6-310	6-329	6-340	6-338	6-321	6-283	6-217	6-115	5
92	-325	-355	-381	-398	-405	-398	-373	-323	-242	6
93	-366	-401	-432	-456	-472	-475	-463	-430	-368	
94	-408	-447	-484	-515	-539	-553	-553	-536	-495	
95	-449	-493	-535	-573	-605	-630	-643	-642	-622	
96	6-490	6-539	6-587	6-631	6-672	6-707	6-733	6-749	6-748	6
97	-532	-585	-638	-690	-739	-784	-824	-855	-875	
98	-573	-631	-690	-748	-806	-861	-914	-961	7-002	7
99	-614	-677	-741	-807	-873	-939	7-004	7-068	-128	
100	-656	-723	-793	-865	-939	7-016	-094	-174	-255	

TABLE IV (cont.)
($Y = 3.0-3.9$; 51-100% kill)

% kill	Expected probit, Y									
	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9
51	—	—	9.205	8.249	7.504	6.922	6.467	6.111	5.834	5.61
52	—	—	-331	-355	-594	-999	-534	-170	-885	-66
53	—	—	-458	-462	-684	7.076	-600	-228	-937	-71
54	—	—	-585	-568	-774	-154	-667	-286	-988	-75
55	—	—	-711	-674	-864	-231	-734	-345	6.040	-80
56	—	—	9.838	8.781	7.954	7.308	6.801	6.403	6.091	5.84
57	—	—	-965	-887	8.045	-385	-868	-461	-143	-89
58	—	—	—	-993	-135	-462	-934	-520	-194	-94
59	—	—	—	9.100	-225	-540	7.001	-578	-246	-98
60	—	—	—	-206	-315	-617	-068	-636	-297	6.03
61	—	—	—	9.312	8.405	7.694	7.135	6.695	6.349	6.07
62	—	—	—	-419	-495	-771	-201	-753	-400	-12
63	—	—	—	-525	-585	-848	-268	-811	-452	-16
64	—	—	—	-631	-676	-926	-335	-870	-503	-21
65	—	—	—	-738	-766	8.003	-402	-928	-555	-26
66	—	—	—	9.844	8.856	8.080	7.469	6.986	6.606	6.30
67	—	—	—	-950	-946	-157	-535	7.045	-658	-35
68	—	—	—	—	9.036	-234	-602	-103	-709	-39
69	—	—	—	—	-126	-312	-669	-162	-761	-44
70	—	—	—	—	-216	-389	-736	-220	-812	-49
71	—	—	—	—	9.307	8.466	7.803	7.278	6.864	6.53
72	—	—	—	—	-397	-543	-869	-337	-915	-58
73	—	—	—	—	-487	-621	-936	-395	-967	-62
74	—	—	—	—	-577	-698	8.003	-453	7.018	-67
75	—	—	—	—	-667	-775	-070	-512	-070	-72
76	—	—	—	—	9.757	8.852	8.136	7.570	7.121	6.76
77	—	—	—	—	-848	-929	-203	-628	-173	-81
78	—	—	—	—	-938	9.007	-270	-687	-224	-85
79	—	—	—	—	—	-084	-337	-745	-276	-90
80	—	—	—	—	—	-161	-404	-803	-327	-95
81	—	—	—	—	—	9.238	8.470	7.862	7.379	6.99
82	—	—	—	—	—	-315	-537	-920	-430	7.04
83	—	—	—	—	—	-393	-604	-978	-482	-08
84	—	—	—	—	—	-470	-671	8.037	-533	-13
85	—	—	—	—	—	-547	-738	-095	-585	-17
86	—	—	—	—	—	9.624	8.804	8.154	7.636	7.22
87	—	—	—	—	—	-701	-871	-212	-688	-27
88	—	—	—	—	—	-779	-938	-270	-739	-31
89	—	—	—	—	—	-856	9.005	-329	-791	-36
90	—	—	—	—	—	-933	-072	-387	-842	-40
91	—	—	—	—	—	—	9.138	8.445	7.894	7.45
92	—	—	—	—	—	—	-205	-504	-945	-50
93	—	—	—	—	—	—	-272	-562	-997	-54
94	—	—	—	—	—	—	-339	-620	8.048	-59
95	—	—	—	—	—	—	-405	-679	-100	-63
96	—	—	—	—	—	—	9.472	8.737	8.151	7.68
97	—	—	—	—	—	—	-539	-795	-203	-73
98	—	—	—	—	—	—	-606	-854	-254	-77
99	—	—	—	—	—	—	-673	-912	-306	-82
100	—	—	—	—	—	—	-739	-970	-357	-86

TABLE IV (cont.)
(Y = 7-0-7-9; 51-100% kill)

	% kill	Expected probit, Y							
		7-0	7-1	7-2	7-3	7-4	7-5	7-6	7-7
6-9	51	—	—	—	—	—	—	—	—
—	52	—	—	—	—	—	—	—	—
022	53	—	—	—	—	—	—	—	—
175	54	—	—	—	—	—	—	—	—
327	55	—	—	—	—	—	—	—	—
480	56	—	—	—	—	—	—	—	—
632	57	—	—	—	—	—	—	—	—
784	58	—	—	—	—	—	—	—	—
937	59	—	—	—	—	—	—	—	—
089	60	0-013	—	—	—	—	—	—	—
242	61	0-198	—	—	—	—	—	—	—
394	62	383	—	—	—	—	—	—	—
546	63	568	—	—	—	—	—	—	—
699	64	753	—	—	—	—	—	—	—
851	65	939	—	—	—	—	—	—	—
004	66	1-124	—	—	—	—	—	—	—
156	67	309	0-003	—	—	—	—	—	—
308	68	494	231	—	—	—	—	—	—
461	69	680	458	—	—	—	—	—	—
613	70	865	685	—	—	—	—	—	—
766	71	2-050	0-913	—	—	—	—	—	—
918	72	235	1-140	—	—	—	—	—	—
070	73	420	367	—	—	—	—	—	—
223	74	606	595	0-263	—	—	—	—	—
375	75	791	822	545	—	—	—	—	—
528	76	2-976	2-050	0-827	—	—	—	—	—
680	77	3-161	277	1-108	—	—	—	—	—
832	78	347	504	390	—	—	—	—	—
985	79	532	732	672	0-265	—	—	—	—
137	80	717	959	954	618	—	—	—	—
290	81	3-902	3-186	2-236	0-971	—	—	—	—
442	82	4-087	414	518	1-324	—	—	—	—
594	83	273	641	800	677	0-175	—	—	—
747	84	458	868	3-082	2-030	621	—	—	—
899	85	643	4-096	364	383	1-068	—	—	—
052	86	4-828	4-323	3-645	2-736	1-514	—	—	—
204	87	5-014	551	927	3-089	961	0-438	—	—
356	88	199	778	4-209	442	2-408	1-008	—	—
509	89	384	5-005	491	795	854	579	—	—
661	90	569	233	773	4-148	3-301	2-149	0-581	—
814	91	5-754	5-460	5-055	4-501	3-747	2-720	1-317	—
966	92	940	687	337	854	4-194	3-290	2-054	0-356
118	93	6-125	915	619	5-207	640	861	790	1-316
271	94	310	6-142	901	560	5-087	4-431	3-526	2-275
423	95	495	369	6-182	914	533	5-002	4-262	3-235
576	96	6-681	6-597	6-464	6-267	5-980	5-572	4-998	4-194
728	97	866	824	746	620	6-426	6-143	5-735	5-154
880	98	7-051	7-051	7-028	973	873	713	6-471	6-114
033	99	236	279	310	7-326	7-319	7-284	7-207	7-073
185	100	421	506	592	679	766	854	943	8-033
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