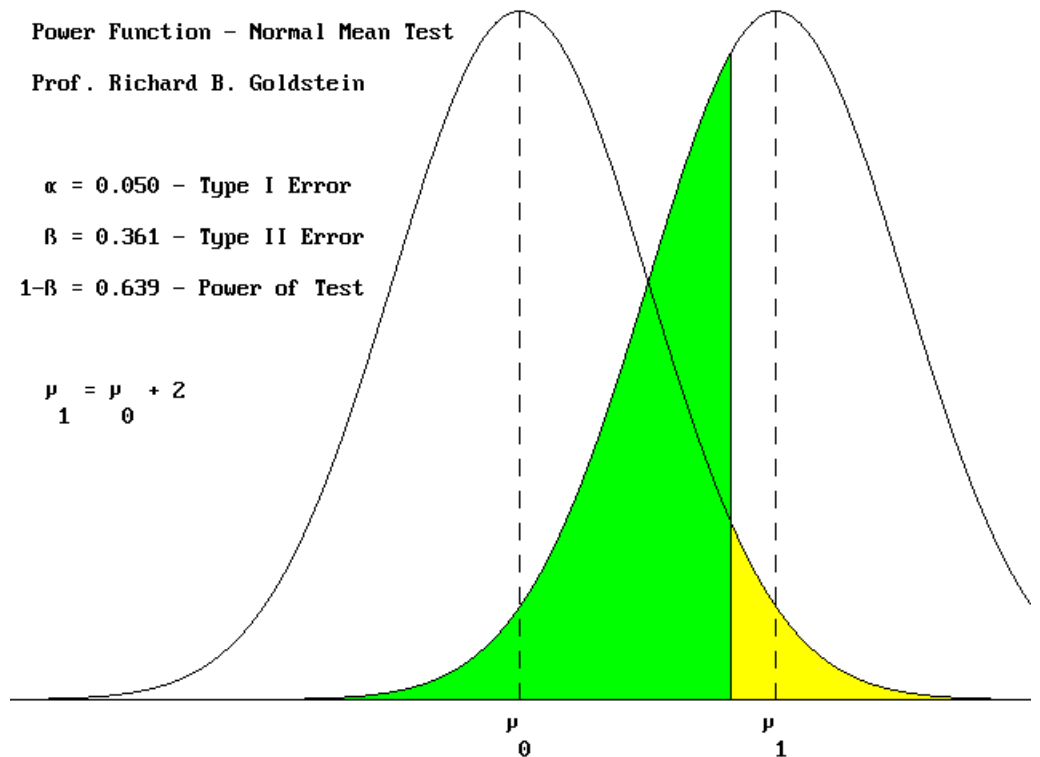
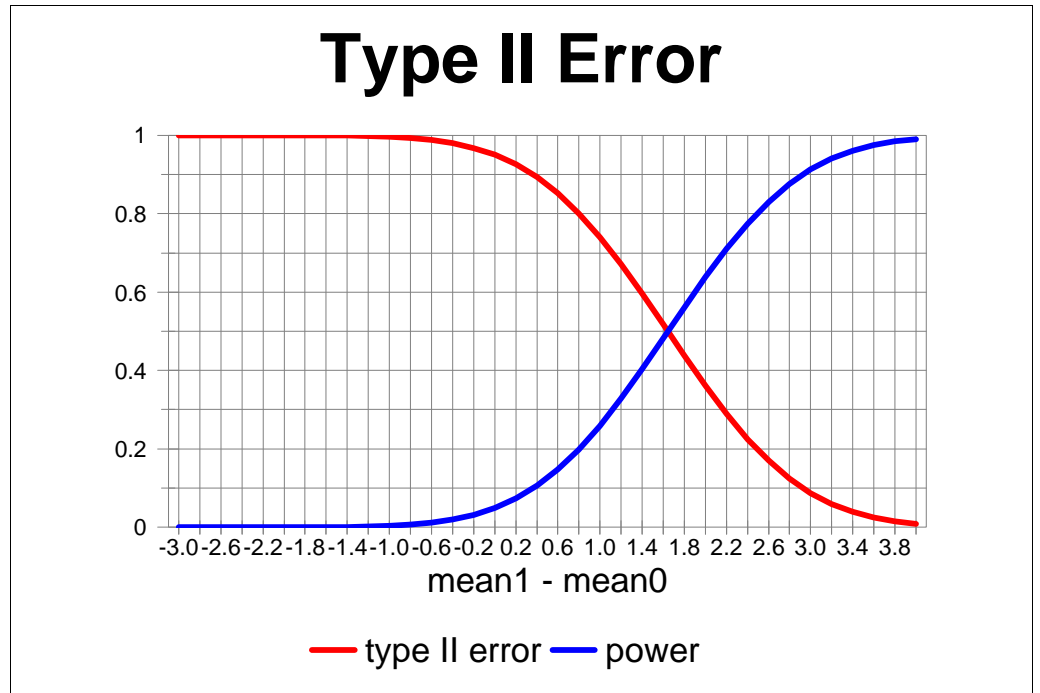


K 1.64485363

x	type II error	power
-3.0	1.00000	0.00000
-2.8	1.00000	0.00000
-2.6	0.99999	0.00001
-2.4	0.99997	0.00003
-2.2	0.99994	0.00006
-2.0	0.99987	0.00013
-1.8	0.99971	0.00029
-1.6	0.99941	0.00059
-1.4	0.99884	0.00116
-1.2	0.99778	0.00222
-1.0	0.99591	0.00409
-0.8	0.99275	0.00725
-0.6	0.98761	0.01239
-0.4	0.97957	0.02043
-0.2	0.96747	0.03253
0.0	0.95000	0.05000
0.2	0.92575	0.07425
0.4	0.89341	0.10659
0.6	0.85195	0.14805
0.8	0.80090	0.19910
1.0	0.74049	0.25951
1.2	0.67179	0.32821
1.4	0.59672	0.40328
1.6	0.51789	0.48211
1.8	0.43835	0.56165
2.0	0.36124	0.63876
2.2	0.28940	0.71060
2.4	0.22508	0.77492
2.6	0.16975	0.83025
2.8	0.12402	0.87598
3.0	0.08769	0.91231
3.2	0.05996	0.94004
3.4	0.03962	0.96038
3.6	0.02528	0.97472
3.8	0.01558	0.98442
4.0	0.00926	0.99074



k                    1.644854  
 $\mu_1 - \mu_0$                     2  
 st dev( $\sigma$ )                    3

n	std/sqrt(n)	k	type II error
9	1.0000	1.6449	0.3612
10	0.9487	1.5604	0.3216
11	0.9045	1.4878	0.2856
12	0.8660	1.4245	0.2532
13	0.8321	1.3686	0.2240
14	0.8018	1.3188	0.1978
15	0.7746	1.2741	0.1743
16	0.7500	1.2336	0.1534
17	0.7276	1.1968	0.1348
18	0.7071	1.1631	0.1183
19	0.6882	1.1321	0.1036
20	0.6708	1.1034	0.0907
21	0.6547	1.0768	0.0792
22	0.6396	1.0521	0.0692
23	0.6255	1.0289	0.0603
24	0.6124	1.0073	0.0525
24.3499	0.6080	1.0000	0.0500
25	0.6000	0.9869	0.0457
26	0.5883	0.9677	0.0397
27	0.5774	0.9497	0.0344
28	0.5669	0.9325	0.0299
29	0.5571	0.9163	0.0259
30	0.5477	0.9009	0.0224

n = 24.3499

$$n = \frac{(z_\alpha + z_\beta)^2 \sigma^2}{(\mu_1 - \mu_0)^2} = \frac{(1.645 + 1.645)^2 3^2}{(2 - 0)^2} = 24.35$$

**k = b\$1\*b7**

**type II error = 1-@NORMDIST(b\$2-C7,0,b7,1)**