

N	r	Type 1 Error (α)	Type 2 Error (β)				
		actual value	p=.6	p=.7	p=.75	p=.8	p=.9
10	10	.0010	.9940	.9718	.9437	.8926	.6513
	9	.0107	.9536	.8507	.7560	.6242	.2639
	8	.0547	.8327	.6172	.4744	.3222	.0702
	7	.1719	.6177	.3504	.2241	.1209	.0128
	6	.3770	.3669	.1503	.0781	.0328	.0016
	5	.6230	.1662	.0473	.0197	.0064	.0001
	4	.8281	.0548	.0106	.0035	.0009	.0000
15	14	.0005	.9948	.9647	.9198	.8329	.4510
	13	.0037	.9729	.8732	.7639	.6020	.1841
	12	.0176	.9095	.7031	.5387	.3518	.0556
	11	.0592	.7827	.4845	.3135	.1642	.0127
	10	.1509	.5968	.2784	.1484	.0611	.0022
	9	.3036	.3902	.1311	.0566	.0181	.0003
	8	.5000	.2131	.0500	.0173	.0042	.0000
	7	.6964	.0950	.0152	.0042	.0008	.0000
6	.8491	.0338	.0037	.0008	.0001	.0000	
16	15	.0003	.9967	.9739	.9365	.8593	.4853
	14	.0021	.9817	.9006	.8029	.6482	.2108
	13	.0106	.9349	.7541	.5950	.4019	.0684
	12	.0384	.8334	.5501	.3698	.2018	.0170
	11	.1051	.6712	.3402	.1897	.0817	.0033
	10	.2272	.4728	.1753	.0796	.0267	.0005
	9	.4018	.2839	.0744	.0271	.0070	.0001
	8	.5982	.1423	.0257	.0075	.0015	.0000
	7	.7728	.0583	.0071	.0016	.0002	.0000
	6	.8949	.0191	.0016	.0003	.0000	.0000
20	18	.0002	.9964	.9645	.9087	.7939	.3231
	17	.0013	.9840	.8929	.7748	.5886	.1330
	16	.0059	.9490	.7625	.5852	.3704	.0432
	15	.0207	.8744	.5836	.3828	.1958	.0113
	14	.0577	.7500	.3920	.2142	.0867	.0024
	13	.1316	.5841	.2277	.1018	.0321	.0004
	12	.2517	.4044	.1133	.0409	.0100	.0001
	11	.4119	.2447	.0480	.0139	.0026	.0000
	10	.5881	.1275	.0171	.0039	.0006	.0000
	9	.7483	.0565	.0051	.0009	.0001	.0000
	8	.8684	.0210	.0013	.0002	.0000	.0000
25	21	.0005	.9905	.9095	.7863	.5793	.0980
	20	.0020	.9706	.8065	.6217	.3833	.0334
	19	.0073	.9264	.6593	.4389	.2200	.0095
	18	.0216	.8464	.4882	.2735	.1091	.0023
	17	.0539	.7265	.3231	.1494	.0468	.0005
	16	.1148	.5754	.1894	.0713	.0173	.0001
	15	.2122	.4142	.0978	.0297	.0056	.0000
	14	.3450	.2677	.0442	.0107	.0015	.0000
	13	.5000	.1538	.0175	.0034	.0004	.0000
	12	.6550	.0778	.0060	.0009	.0001	.0000
	11	.7878	.0344	.0018	.0002	.0000	.0000
	10	.8852	.0132	.0005	.0000	.0000	.0000

Table 3. Minimum number of correct responses (r) for concluding that performance is better than chance, and resulting Type 1 and Type 2 error probabilities for p values from .6 to .9 in listening tests with N's from 10 to 180. Probabilities for N of 16 are included for those using the ABX comparator, the manufacturer of which supplied 16-trial scoresheets [8]. The p value of .75 is included for those employing a 75-percent-correct criterion as a difference threshold for the perception of the difference between two stimuli.