Statistical Power of the t Test for One Sample or Two Related Samples
(Two-Tailed Test, α = .05)

n	Cohen's *d*																			
	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.90	1.00	1.10	1.20	1.30	1.40	1.50
3	.05	.05	.05	.05	.05	.05	.06	.06	.06	.06	.06	.06	.06	.07	.08	.08	.09	.10	.11	.13
4	.05	.05	.06	.06	.06	.07	.07	.08	.08	.09	.10	.10	.11	.14	.17	.21	.25	.31	.37	.44
5	.06	.06	.06	.07	.08	.09	.10	.11	.12	.13	.15	.17	.19	.25	.31	.39	.47	.55	.63	.70
6	.06	.07	.07	.08	.09	.11	.12	.14	.17	.19	.22	.25	.29	.37	.46	.55	.64	.72	.79	.84
7	.06	.07	.08	.10	.11	.13	.16	.18	.21	.25	.29	.33	.38	.48	.58	.67	.75	.82	.87	.91
8	.07	.08	.09	.11	.13	.16	.19	.23	.27	.31	.36	.41	.46	.57	.67	.76	.83	.88	.92	.95
9	.07	.09	.10	.13	.15	.19	.22	.27	.31	.37	.42	.48	.54	.65	.75	.83	.88	.93	.95	.97
10	.08	.09	.12	.14	.18	.21	.26	.31	.36	.42	.48	.54	.60	.71	.80	.87	.92	.95	.97	.98
11	.08	.10	.13	.16	.20	.24	.29	.35	.41	.47	.54	.60	.66	.77	.85	.91	.94	.97	.98	.99
12	.09	.11	.14	.17	.22	.27	.33	.39	.45	.52	.59	.65	.71	.81	.88	.93	.96	.98	.99	.99
13	.09	.12	.15	.19	.24	.30	.36	.42	.49	.56	.63	.70	.75	.85	.91	.95	.97	.99	.99	
14	.10	.13	.16	.21	.26	.32	.39	.46	.53	.61	.67	.74	.79	.88	.93	.96	.98	.99		
15	.10	.13	.17	.22	.28	.35	.42	.49	.57	.64	.71	.77	.82	.90	.95	.97	.99	.99		
16	.11	.14	.19	.24	.30	.37	.45	.53	.60	.68	.74	.80	.85	.92	.96	.98	.99			
17	.11	.15	.20	.26	.32	.40	.48	.56	.64	.71	.77	.83	.87	.93	.97	.99	.99			
18	.12	.16	.21	.27	.34	.42	.50	.59	.67	.74	.80	.85	.89	.95	.98	.99				
19	.12	.17	.22	.29	.36	.45	.53	.62	.69	.76	.82	.87	.91	.96	.98	.99				
20	.13	.17	.23	.30	.38	.47	.56	.64	.72	.79	.84	.89	.92	.97	.99	.99				
21	.13	.18	.24	.32	.40	.49	.58	.67	.74	.81	.86	.90	.94	.97	.99					
22	.14	.19	.26	.33	.42	.51	.60	.69	.76	.83	.88	.92	.95	.98	.99					
23	.14	.20	.27	.35	.44	.53	.63	.71	.78	.85	.89	.93	.95	.98	.99					
24	.15	.21	.28	.36	.46	.55	.65	.73	.80	.86	.91	.94	.96	.99						
30	.18	.25	.35	.45	.56	.66	.75	.83	.89	.93	.96	.98	.99							
40	.23	.33	.45	.58	.69	.79	.87	.92	.96	.98	.99									
50	.28	.41	.54	.68	.79	.88	.93	.97	.98	.99										
60	.33	.47	.63	.76	.86	.93	.97	.99	.99											
70	.37	.54	.70	.82	.91	.96	.98	.99												
80	.42	.60	.75	.87	.94	.98	.99													
90	.46	.65	.80	.91	.96	.99														
100	.51	.70	.84	.93	.98	.99														

Statistical Power of the t Test for One Sample or Two Related Samples
(Two-Tailed Test, α = .01)

n	Cohen's *d*																			
	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.90	1.00	1.10	1.20	1.30	1.40	1.50
3	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
4	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.02	.02	.02	.02	.03	.03	.03
5	.01	.01	.01	.01	.01	.01	.01	.02	.02	.02	.02	.02	.03	.03	.04	.05	.06	.08	.11	.14
6	.01	.01	.01	.01	.02	.02	.02	.02	.03	.03	.04	.04	.05	.06	.09	.12	.16	.22	.29	.37
7	.01	.01	.02	.02	.02	.02	.03	.03	.04	.05	.06	.07	.08	.12	.16	.23	.31	.40	.50	.60
8	.01	.02	.02	.02	.03	.03	.04	.05	.06	.07	.09	.11	.13	.19	.26	.35	.46	.57	.67	.76
9	.01	.02	.02	.03	.03	.04	.05	.06	.08	.10	.12	.15	.18	.27	.37	.48	.59	.70	.79	.86
10	.02	.02	.02	.03	.04	.05	.07	.08	.10	.13	.16	.20	.25	.35	.47	.59	.70	.79	.87	.92
11	.02	.02	.03	.04	.05	.06	.08	.10	.13	.17	.21	.26	.31	.43	.56	.68	.78	.86	.91	.95
12	.02	.02	.03	.04	.06	.08	.10	.13	.16	.21	.26	.31	.37	.50	.64	.75	.84	.91	.95	.97
13	.02	.03	.04	.05	.07	.09	.12	.15	.20	.25	.30	.37	.43	.57	.70	.81	.89	.94	.97	.98
14	.02	.03	.04	.06	.08	.10	.14	.18	.23	.29	.35	.42	.49	.64	.76	.86	.92	.96	.98	.99
15	.02	.03	.05	.06	.09	.12	.16	.21	.26	.33	.40	.47	.55	.69	.81	.89	.94	.97	.99	.99
16	.03	.04	.05	.07	.10	.13	.18	.23	.30	.37	.44	.52	.60	.74	.85	.92	.96	.98	.99	
17	.03	.04	.06	.08	.11	.15	.20	.26	.33	.41	.49	.57	.64	.78	.88	.94	.97	.99	.99	
18	.03	.04	.06	.09	.12	.17	.22	.29	.36	.44	.53	.61	.69	.81	.90	.95	.98	.99		
19	.03	.05	.07	.10	.14	.19	.25	.32	.40	.48	.57	.65	.72	.84	.92	.96	.98	.99		
20	.03	.05	.07	.11	.15	.20	.27	.35	.43	.52	.60	.69	.76	.87	.94	.97	.99			
21	.03	.05	.08	.11	.16	.22	.29	.37	.46	.55	.64	.72	.79	.89	.95	.98	.99			
22	.04	.06	.08	.12	.18	.24	.32	.40	.49	.59	.67	.75	.82	.91	.96	.99	.99			
23	.04	.06	.09	.13	.19	.26	.34	.43	.52	.62	.70	.78	.84	.93	.97	.99				
24	.04	.06	.10	.14	.20	.28	.36	.46	.55	.65	.73	.80	.86	.94	.98	.99				
30	.05	.09	.14	.20	.29	.39	.49	.60	.70	.79	.85	.91	.94	.98	.99					
40	.08	.13	.21	.31	.43	.55	.67	.78	.86	.92	.95	.98	.99							
50	.11	.18	.29	.42	.56	.69	.80	.88	.94	.97	.99	.99								
60	.14	.24	.37	.52	.67	.79	.88	.94	.97	.99										
70	.17	.29	.44	.61	.76	.87	.94	.97	.99											
80	.20	.34	.52	.69	.82	.92	.96	.99												
90	.23	.40	.58	.75	.88	.95	.98	.99												
100	.27	.45	.65	.81	.91	.97	.99													

Statistical Power of the t Test for One Sample or Two Related Samples
(One-Tailed Test, α = .05)

n	Cohen's *d*																			
	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.90	1.00	1.10	1.20	1.30	1.40	1.50
3	.06	.07	.07	.07	.08	.08	.09	.09	.10	.11	.11	.12	.13	.15	.18	.21	.24	.29	.33	.39
4	.07	.08	.09	.10	.11	.12	.13	.15	.17	.18	.21	.23	.25	.31	.37	.44	.52	.59	.66	.72
5	.08	.10	.11	.12	.14	.16	.18	.21	.24	.27	.30	.34	.37	.46	.54	.62	.69	.76	.81	.86
6	.09	.11	.13	.15	.17	.20	.23	.27	.30	.34	.39	.43	.48	.57	.66	.74	.80	.85	.89	.92
7	.10	.12	.15	.17	.21	.24	.28	.32	.37	.42	.47	.52	.57	.66	.75	.81	.87	.91	.94	.96
8	.11	.14	.17	.20	.24	.28	.32	.37	.42	.48	.53	.59	.64	.73	.81	.87	.91	.94	.96	.97
9	.12	.15	.18	.22	.26	.31	.36	.42	.48	.53	.59	.65	.70	.79	.86	.91	.94	.96	.98	.99
10	.13	.16	.20	.24	.29	.35	.40	.46	.52	.59	.64	.70	.75	.83	.89	.93	.96	.98	.99	.99
11	.14	.17	.22	.26	.32	.38	.44	.50	.57	.63	.69	.74	.79	.87	.92	.95	.97	.98	.99	.99
12	.15	.19	.23	.29	.34	.41	.48	.54	.61	.67	.73	.78	.82	.89	.94	.97	.98	.99	.99	
13	.15	.20	.25	.31	.37	.44	.51	.58	.65	.71	.76	.81	.85	.92	.95	.98	.99	.99		
14	.16	.21	.26	.33	.39	.47	.54	.61	.68	.74	.79	.84	.88	.93	.96	.98	.99			
15	.17	.22	.28	.35	.42	.49	.57	.64	.71	.77	.82	.86	.90	.95	.97	.99	.99			
16	.18	.23	.29	.36	.44	.52	.60	.67	.74	.79	.84	.88	.92	.96	.98	.99				
17	.19	.24	.31	.38	.46	.54	.62	.70	.76	.82	.86	.90	.93	.97	.98	.99				
18	.19	.25	.32	.40	.48	.57	.65	.72	.78	.84	.88	.92	.94	.97	.99					
19	.20	.26	.34	.42	.50	.59	.67	.74	.81	.86	.90	.93	.95	.98	.99					
20	.21	.27	.35	.44	.52	.61	.69	.76	.82	.87	.91	.94	.96	.98	.99					
21	.21	.28	.37	.45	.54	.63	.71	.78	.84	.89	.92	.95	.97	.99						
22	.22	.29	.38	.47	.56	.65	.73	.80	.86	.90	.93	.96	.97	.99						
23	.23	.30	.39	.48	.58	.67	.75	.82	.87	.91	.94	.96	.98	.99						
24	.24	.31	.40	.50	.60	.69	.77	.83	.88	.92	.95	.97	.98	.99						
30	.28	.37	.48	.59	.69	.77	.85	.90	.94	.96	.98	.99	.99							
40	.34	.46	.58	.70	.80	.87	.93	.96	.98	.99										
50	.40	.54	.67	.79	.87	.93	.97	.98	.99											
60	.45	.60	.74	.85	.92	.96	.98	.99												
70	.50	.66	.80	.89	.95	.98	.99													
80	.55	.72	.84	.93	.97	.99														
90	.59	.76	.88	.95	.98	.99														
100	.63	.80	.91	.97	.99															

Statistical Power of the t Test for One Sample or Two Related Samples
(One-Tailed Test, α = .01)

n	Cohen's *d*																			
	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.90	1.00	1.10	1.20	1.30	1.40	1.50
3	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.02	.02	.02	.02	.02	.02	.02	.02
4	.01	.01	.01	.02	.02	.02	.02	.02	.02	.02	.03	.03	.03	.04	.04	.05	.06	.07	.09	.11
5	.01	.02	.02	.02	.02	.03	.03	.03	.04	.04	.05	.05	.06	.08	.10	.13	.17	.22	.29	.36
6	.02	.02	.02	.03	.03	.04	.04	.05	.06	.07	.08	.09	.11	.15	.20	.27	.34	.43	.52	.62
7	.02	.02	.03	.03	.04	.05	.06	.07	.09	.10	.12	.15	.17	.24	.32	.41	.51	.61	.70	.78
8	.02	.03	.03	.04	.05	.06	.08	.10	.12	.14	.17	.20	.24	.33	.44	.54	.65	.74	.82	.87
9	.03	.03	.04	.05	.06	.08	.10	.12	.15	.19	.22	.27	.32	.42	.54	.65	.75	.83	.89	.93
10	.03	.04	.05	.06	.08	.10	.12	.15	.19	.23	.28	.33	.39	.51	.63	.74	.82	.89	.93	.96
11	.03	.04	.05	.07	.09	.12	.15	.18	.23	.28	.33	.39	.46	.59	.70	.80	.87	.92	.96	.97
12	.03	.05	.06	.08	.10	.14	.17	.22	.27	.33	.39	.45	.52	.65	.76	.85	.91	.95	.97	.98
13	.04	.05	.07	.09	.12	.16	.20	.25	.31	.37	.44	.51	.58	.71	.81	.89	.94	.97	.98	.99
14	.04	.06	.08	.10	.13	.18	.22	.28	.35	.42	.49	.56	.63	.76	.85	.92	.96	.98	.99	.99
15	.04	.06	.08	.11	.15	.20	.25	.31	.38	.46	.53	.61	.68	.80	.88	.94	.97	.98	.99	
16	.05	.06	.09	.12	.17	.22	.28	.35	.42	.50	.58	.65	.72	.83	.91	.95	.98	.99		
17	.05	.07	.10	.14	.18	.24	.30	.38	.46	.54	.62	.69	.76	.86	.93	.97	.98	.99		
18	.05	.08	.11	.15	.20	.26	.33	.41	.49	.57	.65	.73	.79	.89	.94	.97	.99			
19	.06	.08	.11	.16	.21	.28	.36	.44	.52	.61	.69	.76	.82	.91	.96	.98	.99			
20	.06	.09	.12	.17	.23	.30	.38	.47	.56	.64	.72	.79	.84	.92	.97	.99	.99			
21	.06	.09	.13	.18	.25	.32	.41	.50	.59	.67	.75	.81	.87	.94	.97	.99				
22	.06	.10	.14	.20	.26	.34	.43	.52	.62	.70	.77	.84	.88	.95	.98	.99				
23	.07	.10	.15	.21	.28	.36	.46	.55	.64	.73	.80	.86	.90	.96	.98	.99				
24	.07	.11	.16	.22	.30	.39	.48	.58	.67	.75	.82	.87	.92	.97	.99					
30	.09	.14	.21	.29	.39	.50	.61	.71	.79	.86	.91	.94	.97	.99						
40	.13	.20	.30	.42	.54	.66	.77	.85	.91	.95	.97	.99	.99							
50	.16	.26	.39	.53	.66	.78	.87	.93	.96	.98	.99									
60	.20	.33	.47	.62	.76	.86	.93	.97	.99	.99										
70	.24	.39	.55	.71	.83	.91	.96	.99	.99											
80	.28	.45	.62	.77	.88	.95	.98	.99												
90	.32	.50	.68	.83	.92	.97	.99													
100	.36	.55	.74	.87	.95	.98														