

Areas Under the Normal Curve

Z	Cum p	Tail p	Z	Cum p	Tail p	Z	Cum p	Tail p	Z	Cum p	Tail p			
0.00	0.5000	0.5000	0.40	0.6554	0.3446	0.80	0.7881	0.2119	1.20	0.8849	0.1151	1.60	0.9452	0.0548
0.01	0.5040	0.4960	0.41	0.6591	0.3409	0.81	0.7910	0.2090	1.21	0.8869	0.1131	1.61	0.9463	0.0537
0.02	0.5080	0.4920	0.42	0.6628	0.3372	0.82	0.7939	0.2061	1.22	0.8888	0.1112	1.62	0.9474	0.0526
0.03	0.5120	0.4880	0.43	0.6664	0.3336	0.83	0.7967	0.2033	1.23	0.8907	0.1093	1.63	0.9484	0.0516
0.04	0.5160	0.4840	0.44	0.6700	0.3300	0.84	0.7995	0.2005	1.24	0.8925	0.1075	1.64	0.9495	0.0505
0.05	0.5199	0.4801	0.45	0.6736	0.3264	0.85	0.8023	0.1977	1.25	0.8944	0.1056	1.65	0.9505	0.0495
0.06	0.5239	0.4761	0.46	0.6772	0.3228	0.86	0.8051	0.1949	1.26	0.8962	0.1038	1.66	0.9515	0.0485
0.07	0.5279	0.4721	0.47	0.6808	0.3192	0.87	0.8078	0.1922	1.27	0.8980	0.1020	1.67	0.9525	0.0475
0.08	0.5319	0.4681	0.48	0.6844	0.3156	0.88	0.8106	0.1894	1.28	0.8997	0.1003	1.68	0.9535	0.0465
0.09	0.5359	0.4641	0.49	0.6879	0.3121	0.89	0.8133	0.1867	1.29	0.9015	0.0985	1.69	0.9545	0.0455
0.10	0.5398	0.4602	0.50	0.6915	0.3085	0.90	0.8159	0.1841	1.30	0.9032	0.0968	1.70	0.9554	0.0446
0.11	0.5438	0.4562	0.51	0.6950	0.3050	0.91	0.8186	0.1814	1.31	0.9049	0.0951	1.71	0.9564	0.0436
0.12	0.5478	0.4522	0.52	0.6985	0.3015	0.92	0.8212	0.1788	1.32	0.9066	0.0934	1.72	0.9573	0.0427
0.13	0.5517	0.4483	0.53	0.7019	0.2981	0.93	0.8238	0.1762	1.33	0.9082	0.0918	1.73	0.9582	0.0418
0.14	0.5557	0.4443	0.54	0.7054	0.2946	0.94	0.8264	0.1736	1.34	0.9099	0.0901	1.74	0.9591	0.0409
0.15	0.5596	0.4404	0.55	0.7088	0.2912	0.95	0.8289	0.1711	1.35	0.9115	0.0885	1.75	0.9599	0.0401
0.16	0.5636	0.4364	0.56	0.7123	0.2877	0.96	0.8315	0.1685	1.36	0.9131	0.0869	1.76	0.9608	0.0392
0.17	0.5675	0.4325	0.57	0.7157	0.2843	0.97	0.8340	0.1660	1.37	0.9147	0.0853	1.77	0.9616	0.0384
0.18	0.5714	0.4286	0.58	0.7190	0.2810	0.98	0.8365	0.1635	1.38	0.9162	0.0838	1.78	0.9625	0.0375
0.19	0.5753	0.4247	0.59	0.7224	0.2776	0.99	0.8389	0.1611	1.39	0.9177	0.0823	1.79	0.9633	0.0367
0.20	0.5793	0.4207	0.60	0.7257	0.2743	1.00	0.8413	0.1587	1.40	0.9192	0.0808	1.80	0.9641	0.0359
0.21	0.5832	0.4168	0.61	0.7291	0.2709	1.01	0.8438	0.1562	1.41	0.9207	0.0793	1.81	0.9649	0.0351
0.22	0.5871	0.4129	0.62	0.7324	0.2676	1.02	0.8461	0.1539	1.42	0.9222	0.0778	1.82	0.9656	0.0344
0.23	0.5910	0.4090	0.63	0.7357	0.2643	1.03	0.8485	0.1515	1.43	0.9236	0.0764	1.83	0.9664	0.0336
0.24	0.5948	0.4052	0.64	0.7389	0.2611	1.04	0.8508	0.1492	1.44	0.9251	0.0749	1.84	0.9671	0.0329
0.25	0.5987	0.4013	0.65	0.7422	0.2578	1.05	0.8531	0.1469	1.45	0.9265	0.0735	1.85	0.9678	0.0322
0.26	0.6026	0.3974	0.66	0.7454	0.2546	1.06	0.8554	0.1446	1.46	0.9279	0.0721	1.86	0.9686	0.0314
0.27	0.6064	0.3936	0.67	0.7486	0.2514	1.07	0.8577	0.1423	1.47	0.9292	0.0708	1.87	0.9693	0.0307
0.28	0.6103	0.3897	0.68	0.7517	0.2483	1.08	0.8599	0.1401	1.48	0.9306	0.0694	1.88	0.9699	0.0301
0.29	0.6141	0.3859	0.69	0.7549	0.2451	1.09	0.8621	0.1379	1.49	0.9319	0.0681	1.89	0.9706	0.0294
0.30	0.6179	0.3821	0.70	0.7580	0.2420	1.10	0.8643	0.1357	1.50	0.9332	0.0668	1.90	0.9713	0.0287
0.31	0.6217	0.3783	0.71	0.7611	0.2389	1.11	0.8665	0.1335	1.51	0.9345	0.0655	1.91	0.9719	0.0281
0.32	0.6255	0.3745	0.72	0.7642	0.2358	1.12	0.8686	0.1314	1.52	0.9357	0.0643	1.92	0.9726	0.0274
0.33	0.6293	0.3707	0.73	0.7673	0.2327	1.13	0.8708	0.1292	1.53	0.9370	0.0630	1.93	0.9732	0.0268
0.34	0.6331	0.3669	0.74	0.7704	0.2296	1.14	0.8729	0.1271	1.54	0.9382	0.0618	1.94	0.9738	0.0262
0.35	0.6368	0.3632	0.75	0.7734	0.2266	1.15	0.8749	0.1251	1.55	0.9394	0.0606	1.95	0.9744	0.0256
0.36	0.6406	0.3594	0.76	0.7764	0.2236	1.16	0.8770	0.1230	1.56	0.9406	0.0594	1.96	0.9750	0.0250
0.37	0.6443	0.3557	0.77	0.7794	0.2206	1.17	0.8790	0.1210	1.57	0.9418	0.0582	1.97	0.9756	0.0244
0.38	0.6480	0.3520	0.78	0.7823	0.2177	1.18	0.8810	0.1190	1.58	0.9429	0.0571	1.98	0.9761	0.0239
0.39	0.6517	0.3483	0.79	0.7852	0.2148	1.19	0.8830	0.1170	1.59	0.9441	0.0559	1.99	0.9767	0.0233

Z	Cum p	Tail p	Z	Cum p	Tail p	Z	Cum p	Tail p	Z	Cum p	Tail p
2.00	0.9772	0.0228	2.40	0.9918	0.0082	2.80	0.9974	0.0026	3.20	0.9993	0.0007
2.01	0.9778	0.0222	2.41	0.9920	0.0080	2.81	0.9975	0.0025	3.21	0.9993	0.0007
2.02	0.9783	0.0217	2.42	0.9922	0.0078	2.82	0.9976	0.0024	3.22	0.9994	0.0006
2.03	0.9788	0.0212	2.43	0.9925	0.0075	2.83	0.9977	0.0023	3.23	0.9994	0.0006
2.04	0.9793	0.0207	2.44	0.9927	0.0073	2.84	0.9977	0.0023	3.24	0.9994	0.0006
2.05	0.9798	0.0202	2.45	0.9929	0.0071	2.85	0.9978	0.0022	3.25	0.9994	0.0006
2.06	0.9803	0.0197	2.46	0.9931	0.0069	2.86	0.9979	0.0021	3.26	0.9994	0.0006
2.07	0.9808	0.0192	2.47	0.9932	0.0068	2.87	0.9979	0.0021	3.27	0.9995	0.0005
2.08	0.9812	0.0188	2.48	0.9934	0.0066	2.88	0.9980	0.0020	3.28	0.9995	0.0005
2.09	0.9817	0.0183	2.49	0.9936	0.0064	2.89	0.9981	0.0019	3.29	0.9995	0.0005
2.10	0.9821	0.0179	2.50	0.9938	0.0062	2.90	0.9981	0.0019	3.30	0.9995	0.0005
2.11	0.9826	0.0174	2.51	0.9940	0.0060	2.91	0.9982	0.0018	3.31	0.9995	0.0005
2.12	0.9830	0.0170	2.52	0.9941	0.0059	2.92	0.9982	0.0018	3.32	0.9995	0.0005
2.13	0.9834	0.0166	2.53	0.9943	0.0057	2.93	0.9983	0.0017	3.33	0.9996	0.0004
2.14	0.9838	0.0162	2.54	0.9945	0.0055	2.94	0.9984	0.0016	3.34	0.9996	0.0004
2.15	0.9842	0.0158	2.55	0.9946	0.0054	2.95	0.9984	0.0016	3.35	0.9996	0.0004
2.16	0.9846	0.0154	2.56	0.9948	0.0052	2.96	0.9985	0.0015	3.36	0.9996	0.0004
2.17	0.9850	0.0150	2.57	0.9949	0.0051	2.97	0.9985	0.0015	3.37	0.9996	0.0004
2.18	0.9854	0.0146	2.58	0.9951	0.0049	2.98	0.9986	0.0014	3.38	0.9996	0.0004
2.19	0.9857	0.0143	2.59	0.9952	0.0048	2.99	0.9986	0.0014	3.39	0.9997	0.0003
2.20	0.9861	0.0139	2.60	0.9953	0.0047	3.00	0.9987	0.0013	3.40	0.9997	0.0003
2.21	0.9864	0.0136	2.61	0.9955	0.0045	3.01	0.9987	0.0013	3.41	0.9997	0.0003
2.22	0.9868	0.0132	2.62	0.9956	0.0044	3.02	0.9987	0.0013	3.42	0.9997	0.0003
2.23	0.9871	0.0129	2.63	0.9957	0.0043	3.03	0.9988	0.0012	3.43	0.9997	0.0003
2.24	0.9875	0.0125	2.64	0.9959	0.0041	3.04	0.9988	0.0012	3.44	0.9997	0.0003
2.25	0.9878	0.0122	2.65	0.9960	0.0040	3.05	0.9989	0.0011	3.45	0.9997	0.0003
2.26	0.9881	0.0119	2.66	0.9961	0.0039	3.06	0.9989	0.0011	3.46	0.9997	0.0003
2.27	0.9884	0.0116	2.67	0.9962	0.0038	3.07	0.9989	0.0011	3.47	0.9997	0.0003
2.28	0.9887	0.0113	2.68	0.9963	0.0037	3.08	0.9990	0.0010	3.48	0.9997	0.0003
2.29	0.9890	0.0110	2.69	0.9964	0.0036	3.09	0.9990	0.0010	3.49	0.9998	0.0002
2.30	0.9893	0.0107	2.70	0.9965	0.0035	3.10	0.9990	0.0010	3.50	0.9998	0.0002
2.31	0.9896	0.0104	2.71	0.9966	0.0034	3.11	0.9991	0.0009			
2.32	0.9898	0.0102	2.72	0.9967	0.0033	3.12	0.9991	0.0009	3.60	0.9998	0.0002
2.33	0.9901	0.0099	2.73	0.9968	0.0032	3.13	0.9991	0.0009	3.70	0.9999	0.0001
2.34	0.9904	0.0096	2.74	0.9969	0.0031	3.14	0.9992	0.0008	3.80	0.9999	0.0001
2.35	0.9906	0.0094	2.75	0.9970	0.0030	3.15	0.9992	0.0008	3.90	1.0000	0.0000
2.36	0.9909	0.0091	2.76	0.9971	0.0029	3.16	0.9992	0.0008			
2.37	0.9911	0.0089	2.77	0.9972	0.0028	3.17	0.9992	0.0008			
2.38	0.9913	0.0087	2.78	0.9973	0.0027	3.18	0.9993	0.0007			
2.39	0.9916	0.0084	2.79	0.9974	0.0026	3.19	0.9993	0.0007			