

Area Under the Normal Curve

z-score	Area Below	Area Above
-3.50	0.0002	0.9998
-3.49	0.0002	0.9998
-3.48	0.0003	0.9997
-3.47	0.0003	0.9997
-3.46	0.0003	0.9997
-3.45	0.0003	0.9997
-3.44	0.0003	0.9997
-3.43	0.0003	0.9997
-3.42	0.0003	0.9997
-3.41	0.0003	0.9997
-3.40	0.0003	0.9997
-3.39	0.0003	0.9997
-3.38	0.0004	0.9996
-3.37	0.0004	0.9996
-3.36	0.0004	0.9996
-3.35	0.0004	0.9996
-3.34	0.0004	0.9996
-3.33	0.0004	0.9996
-3.32	0.0005	0.9995
-3.31	0.0005	0.9995
-3.30	0.0005	0.9995
-3.29	0.0005	0.9995
-3.28	0.0005	0.9995
-3.27	0.0005	0.9995
-3.26	0.0006	0.9994
-3.25	0.0006	0.9994
-3.24	0.0006	0.9994
-3.23	0.0006	0.9994
-3.22	0.0006	0.9994
-3.21	0.0007	0.9993
-3.20	0.0007	0.9993
-3.19	0.0007	0.9993
-3.18	0.0007	0.9993
-3.17	0.0008	0.9992
-3.16	0.0008	0.9992
-3.15	0.0008	0.9992
-3.14	0.0008	0.9992
-3.13	0.0009	0.9991
-3.12	0.0009	0.9991
-3.11	0.0009	0.9991

-3.10	0.0010	0.9990
-3.09	0.0010	0.9990

z-score	Area Below	Area Above
-3.08	0.0010	0.9990
-3.07	0.0011	0.9989
-3.06	0.0011	0.9989
-3.05	0.0011	0.9989
-3.04	0.0012	0.9988
-3.03	0.0012	0.9988
-3.02	0.0013	0.9987
-3.01	0.0013	0.9987
-3.00	0.0013	0.9987
-2.99	0.0014	0.9986
-2.98	0.0014	0.9986
-2.97	0.0015	0.9985
-2.96	0.0015	0.9985
-2.95	0.0016	0.9984
-2.94	0.0016	0.9984
-2.93	0.0017	0.9983
-2.92	0.0018	0.9982
-2.91	0.0018	0.9982
-2.90	0.0019	0.9981
-2.89	0.0019	0.9981
-2.88	0.0020	0.9980
-2.87	0.0021	0.9979
-2.86	0.0021	0.9979
-2.85	0.0022	0.9978
-2.84	0.0023	0.9977
-2.83	0.0023	0.9977
-2.82	0.0024	0.9976
-2.81	0.0025	0.9975
-2.80	0.0026	0.9974
-2.79	0.0026	0.9974
-2.78	0.0027	0.9973
-2.77	0.0028	0.9972
-2.76	0.0029	0.9971
-2.75	0.0030	0.9970
-2.74	0.0031	0.9969
-2.73	0.0032	0.9968
-2.72	0.0033	0.9967
-2.71	0.0034	0.9966
-2.70	0.0035	0.9965
-2.69	0.0036	0.9964
-2.68	0.0037	0.9963

z-score	Area Below	Area Above
-2.67	0.0038	0.9962
-2.66	0.0039	0.9961
-2.65	0.0040	0.9960
-2.64	0.0041	0.9959
-2.63	0.0043	0.9957
-2.62	0.0044	0.9956
-2.61	0.0045	0.9955
-2.60	0.0047	0.9953
-2.59	0.0048	0.9952
-2.58	0.0049	0.9951
-2.57	0.0051	0.9949
-2.56	0.0052	0.9948
-2.55	0.0054	0.9946
-2.54	0.0055	0.9945
-2.53	0.0057	0.9943
-2.52	0.0059	0.9941
-2.51	0.0060	0.9940
-2.50	0.0062	0.9938
-2.49	0.0064	0.9936
-2.48	0.0066	0.9934
-2.47	0.0068	0.9932
-2.46	0.0069	0.9931
-2.45	0.0071	0.9929
-2.44	0.0073	0.9927
-2.43	0.0075	0.9925
-2.42	0.0078	0.9922
-2.41	0.0080	0.9920
-2.40	0.0082	0.9918
-2.39	0.0084	0.9916
-2.38	0.0087	0.9913
-2.37	0.0089	0.9911
-2.36	0.0091	0.9909
-2.35	0.0094	0.9906
-2.34	0.0096	0.9904
-2.33	0.0099	0.9901
-2.32	0.0102	0.9898
-2.31	0.0104	0.9896
-2.30	0.0107	0.9893
-2.29	0.0110	0.9890
-2.28	0.0113	0.9887
-2.27	0.0116	0.9884

z-score	Area Below	Area Above
-2.26	0.0119	0.9881
-2.25	0.0122	0.9878
-2.24	0.0125	0.9875
-2.23	0.0129	0.9871
-2.22	0.0132	0.9868
-2.21	0.0136	0.9864
-2.20	0.0139	0.9861
-2.19	0.0143	0.9857
-2.18	0.0146	0.9854
-2.17	0.0150	0.9850
-2.16	0.0154	0.9846
-2.15	0.0158	0.9842
-2.14	0.0162	0.9838
-2.13	0.0166	0.9834
-2.12	0.0170	0.9830
-2.11	0.0174	0.9826
-2.10	0.0179	0.9821
-2.09	0.0183	0.9817
-2.08	0.0188	0.9812
-2.07	0.0192	0.9808
-2.06	0.0197	0.9803
-2.05	0.0202	0.9798
-2.04	0.0207	0.9793
-2.03	0.0212	0.9788
-2.02	0.0217	0.9783
-2.01	0.0222	0.9778
-2.00	0.0228	0.9772
-1.99	0.0233	0.9767
-1.98	0.0239	0.9761
-1.97	0.0244	0.9756
-1.96	0.0250	0.9750
-1.95	0.0262	0.9738
-1.93	0.0268	0.9732
-1.92	0.0274	0.9726
-1.91	0.0281	0.9719
-1.90	0.0287	0.9713
-1.89	0.0294	0.9706
-1.88	0.0301	0.9699
-1.87	0.0307	0.9693
-1.86	0.0314	0.9686
-1.85	0.0322	0.9678

z-score	Area Below	Area Above
-1.84	0.0329	0.9671
-1.83	0.0336	0.9664
-1.82	0.0344	0.9656
-1.81	0.0351	0.9649
-1.80	0.0359	0.9641
-1.79	0.0367	0.9633
-1.78	0.0375	0.9625
-1.77	0.0384	0.9616
-1.76	0.0392	0.9608
-1.75	0.0401	0.9599
-1.74	0.0409	0.9591
-1.73	0.0418	0.9582
-1.72	0.0427	0.9573
-1.71	0.0436	0.9564
-1.70	0.0446	0.9554
-1.69	0.0455	0.9545
-1.68	0.0465	0.9535
-1.67	0.0475	0.9525
-1.66	0.0485	0.9515
-1.65	0.0495	0.9505
-1.64	0.0505	0.9495
-1.63	0.0516	0.9484
-1.62	0.0526	0.9474
-1.61	0.0537	0.9463
-1.60	0.0548	0.9452
-1.59	0.0559	0.9441
-1.58	0.0571	0.9429
-1.57	0.0582	0.9418
-1.56	0.0594	0.9406
-1.55	0.0606	0.9394
-1.54	0.0618	0.9382
-1.53	0.0630	0.9370
-1.52	0.0643	0.9357
-1.51	0.0655	0.9345
-1.50	0.0668	0.9332
-1.49	0.0681	0.9319
-1.48	0.0694	0.9306
-1.47	0.0708	0.9292
-1.46	0.0721	0.9279
-1.45	0.0749	0.9251
-1.43	0.0764	0.9236

z-score	Area Below	Area Above
-1.42	0.0778	0.9222
-1.41	0.0793	0.9207
-1.40	0.0808	0.9192
-1.39	0.0823	0.9177
-1.38	0.0838	0.9162
-1.37	0.0853	0.9147
-1.36	0.0869	0.9131
-1.35	0.0885	0.9115
-1.34	0.0901	0.9099
-1.33	0.0918	0.9082
-1.32	0.0934	0.9066
-1.31	0.0951	0.9049
-1.30	0.0968	0.9032
-1.29	0.0985	0.9015
-1.28	0.1003	0.8997
-1.27	0.1020	0.8980
-1.26	0.1038	0.8962
-1.25	0.1056	0.8944
-1.24	0.1075	0.8925
-1.23	0.1093	0.8907
-1.22	0.1112	0.8888
-1.21	0.1131	0.8869
-1.20	0.1151	0.8849
-1.19	0.1170	0.8830
-1.18	0.1190	0.8810
-1.17	0.1210	0.8790
-1.16	0.1230	0.8770
-1.15	0.1251	0.8749
-1.14	0.1271	0.8729
-1.13	0.1292	0.8708
-1.12	0.1314	0.8686
-1.11	0.1335	0.8665
-1.10	0.1357	0.8643
-1.09	0.1379	0.8621
-1.08	0.1401	0.8599
-1.07	0.1423	0.8577
-1.06	0.1446	0.8554
-1.05	0.1469	0.8531
-1.04	0.1492	0.8508
-1.03	0.1515	0.8485
-1.02	0.1539	0.8461

z-score	Area Below	Area Above
-1.01	0.1562	0.8438
-1.00	0.1587	0.8413
-0.99	0.1611	0.8389
-0.98	0.1635	0.8365
-0.97	0.1660	0.8340
-0.96	0.1685	0.8315
-0.95	0.1711	0.8289
-0.94	0.1736	0.8264
-0.93	0.1762	0.8238
-0.92	0.1788	0.8212
-0.91	0.1814	0.8186
-0.90	0.1841	0.8159
-0.89	0.1867	0.8106
-0.87	0.1922	0.8078
-0.86	0.1949	0.8051
-0.85	0.1977	0.8023
-0.84	0.2005	0.7995
-0.83	0.2033	0.7967
-0.82	0.2061	0.7939
-0.81	0.2090	0.7910
-0.80	0.2119	0.7881
-0.79	0.2148	0.7852
-0.78	0.2177	0.7823
-0.77	0.2206	0.7794
-0.76	0.2236	0.7764
-0.75	0.2266	0.7734
-0.74	0.2297	0.7703
-0.73	0.2327	0.7673
-0.72	0.2358	0.7642
-0.71	0.2389	0.7611
-0.70	0.2420	0.7580
-0.69	0.2451	0.7549
-0.68	0.2483	0.7517
-0.67	0.2514	0.7486
-0.66	0.2546	0.7454
-0.65	0.2578	0.7422
-0.64	0.2611	0.7389
-0.63	0.2643	0.7357
-0.62	0.2676	0.7324
-0.61	0.2709	0.7291
-0.60	0.2743	0.7257

z-score	Area Below	Area Above
-0.59	0.2776	0.7224
-0.58	0.2810	0.7190
-0.57	0.2843	0.7157
-0.56	0.2877	0.7123
-0.55	0.2912	0.7088
-0.54	0.2946	0.7054
-0.53	0.2981	0.7019
-0.52	0.3015	0.6985
-0.51	0.3050	0.6950
-0.5	0.3085	0.6915
-0.49	0.3121	0.6879
-0.48	0.3156	0.6844
-0.47	0.3192	0.6808
-0.46	0.3228	0.6772
-0.45	0.3264	0.6736
-0.44	0.3300	0.6700
-0.43	0.3336	0.6664
-0.42	0.3372	0.6628
-0.41	0.3409	0.6591
-0.40	0.3446	0.6554
-0.39	0.3483	0.6517
-0.38	0.3520	0.6480
-0.37	0.3557	0.6443
-0.36	0.3594	0.6406
-0.35	0.3632	0.6331
-0.33	0.3707	0.6293
-0.32	0.3745	0.6255
-0.31	0.3783	0.6217
-0.30	0.3821	0.6179
-0.29	0.3859	0.6141
-0.28	0.3897	0.6103
-0.27	0.3936	0.6064
-0.26	0.3974	0.6026
-0.25	0.4013	0.5987
-0.24	0.4052	0.5948
-0.23	0.4090	0.5910
-0.22	0.4129	0.5871
-0.21	0.4168	0.5832
-0.20	0.4207	0.5793
-0.19	0.4247	0.5753
-0.18	0.4286	0.5714

z-score	Area Below	Area Above
-0.17	0.4325	0.5675
-0.16	0.4364	0.5636
-0.15	0.4404	0.5596
-0.14	0.4443	0.5557
-0.13	0.4483	0.5517
-0.12	0.4522	0.5478
-0.11	0.4562	0.5438
-0.10	0.4602	0.5398
-0.09	0.4641	0.5359
-0.08	0.4681	0.5319
-0.07	0.4721	0.5279
-0.06	0.4761	0.5239
-0.05	0.4801	0.5199
-0.04	0.4840	0.5120
-0.02	0.4920	0.5080
-0.01	0.4960	0.5040
0.00	0.5000	0.5000
0.01	0.5040	0.4960
0.02	0.5080	0.4920
0.03	0.5120	0.4880
0.04	0.5160	0.4840
0.05	0.5199	0.4801
0.06	0.5239	0.4761
0.07	0.5279	0.4721
0.08	0.5319	0.4681
0.09	0.5359	0.4641
0.10	0.5398	0.4602
0.11	0.5438	0.4562
0.22	0.5871	0.4129
0.23	0.5910	0.4090
0.24	0.5948	0.4052
0.25	0.5987	0.4013
0.26	0.6026	0.3974
0.27	0.6064	0.3936
0.28	0.6103	0.3897
0.29	0.6141	0.3859
0.30	0.6179	0.3783
0.32	0.6255	0.3745
0.33	0.6331	0.3669
0.35	0.6368	0.3632
0.36	0.6406	0.3594

z-score	Area Below	Area Above
0.37	0.6443	0.3557
0.38	0.6480	0.3520
0.39	0.6517	0.3483
0.40	0.6554	0.3446
0.41	0.6591	0.3409
0.42	0.6628	0.3372
0.43	0.6664	0.3336
0.44	0.6700	0.3300
0.45	0.6736	0.3264
0.46	0.6772	0.3228
0.47	0.6808	0.3192
0.48	0.6844	0.3156
0.49	0.6879	0.3121
0.50	0.6915	0.3085
0.51	0.6950	0.3050
0.52	0.6985	0.3015
0.53	0.7019	0.2981
0.54	0.7054	0.2946
0.55	0.7088	0.2912
0.56	0.7123	0.2877
0.57	0.7157	0.2843
0.58	0.7190	0.2810
0.59	0.7224	0.2776
0.60	0.7257	0.2743
0.61	0.7291	0.2709
0.62	0.7324	0.2676
0.63	0.7357	0.2643
0.64	0.7389	0.2611
0.65	0.7422	0.2578
0.66	0.7454	0.2546
0.67	0.7486	0.2514
0.68	0.7517	0.2483
0.69	0.7549	0.2451
0.70	0.7580	0.2420
0.71	0.7611	0.2389
0.72	0.7642	0.2358
0.73	0.7673	0.2297
0.75	0.7734	0.2266
0.76	0.7764	0.2236
0.77	0.7794	0.2206
0.78	0.7823	0.2148

z-score	Area Below	Area Above
0.80	0.7881	0.2119
0.81	0.7910	0.2090
0.82	0.7939	0.2061
0.83	0.7967	0.2005
0.85	0.8023	0.1977
0.86	0.8051	0.1949
0.87	0.8078	0.1922
0.88	0.8106	0.1894
0.89	0.8133	0.1867
0.90	0.8159	0.1841
0.91	0.8186	0.1814
0.92	0.8212	0.1788
0.93	0.8238	0.1762
0.94	0.8264	0.1736
0.95	0.8289	0.1711
0.96	0.8315	0.1685
0.97	0.8340	0.1660
0.98	0.8365	0.1635
0.99	0.8389	0.1611
1.00	0.8413	0.1587
1.01	0.8438	0.1562
1.02	0.8461	0.1539
1.03	0.8485	0.1515
1.04	0.8508	0.1492
1.05	0.8531	0.1469
1.06	0.8554	0.1446
1.07	0.8577	0.1423
1.08	0.8599	0.1401
1.09	0.8621	0.1379
1.10	0.8643	0.1357
1.11	0.8665	0.1335
1.12	0.8686	0.1314
1.13	0.8708	0.1292
1.14	0.8729	0.1271
1.15	0.8749	0.1251
1.16	0.8770	0.1230
1.17	0.8790	0.1210
1.18	0.8810	0.1190
1.19	0.8830	0.1170
1.20	0.8849	0.1151
1.21	0.8869	0.1131

z-score	Area Below	Area Above
1.22	0.8888	0.1112
1.23	0.8907	0.1093
1.24	0.8925	0.1075
1.25	0.8944	0.1056
1.26	0.8980	0.1020
1.28	0.8997	0.1003
1.29	0.9015	0.0985
1.30	0.9032	0.0968
1.31	0.9049	0.0951
1.32	0.9066	0.0934
1.33	0.9082	0.0918
1.34	0.9099	0.0901
1.35	0.9115	0.0885
1.36	0.9131	0.0869
1.37	0.9147	0.0853
1.38	0.9162	0.0838
1.39	0.9177	0.0823
1.40	0.9192	0.0808
1.41	0.9207	0.0793
1.42	0.9222	0.0778
1.43	0.9236	0.0764
1.44	0.9251	0.0749
1.45	0.9265	0.0735
1.46	0.9279	0.0721
1.47	0.9292	0.0708
1.48	0.9306	0.0694
1.49	0.9319	0.0681
1.50	0.9332	0.0668
1.51	0.9345	0.0655
1.52	0.9357	0.0643
1.53	0.9370	0.0630
1.54	0.9382	0.0618
1.55	0.9394	0.0606
1.56	0.9406	0.0594
1.57	0.9418	0.0582
1.58	0.9429	0.0571
1.59	0.9441	0.0559
1.60	0.9452	0.0548
1.61	0.9463	0.0537
1.62	0.9474	0.0526
1.63	0.9484	0.0516

z-score	Area Below	Area Above
1.64	0.9495	0.0505
1.65	0.9505	0.0495
1.66	0.9515	0.0485
1.67	0.9525	0.0475
1.68	0.9535	0.0465
1.69	0.9545	0.0455
1.70	0.9554	0.0446
1.71	0.9564	0.0436
1.72	0.9573	0.0427
1.73	0.9582	0.0418
1.74	0.9591	0.0409
1.75	0.9599	0.0401
1.76	0.9608	0.0392
1.77	0.9616	0.0384
1.78	0.9625	0.0375
1.79	0.9633	0.0367
1.80	0.9641	0.0359
1.81	0.9649	0.0351
1.82	0.9656	0.0344
1.83	0.9664	0.0336
1.84	0.9671	0.0329
1.85	0.9678	0.0322
1.86	0.9686	0.0314
1.87	0.9693	0.0307
1.88	0.9699	0.0301
1.89	0.9706	0.0294
1.90	0.9713	0.0287
1.91	0.9719	0.0281
1.92	0.9726	0.0274
1.93	0.9732	0.0262
1.95	0.9744	0.0256
1.96	0.9750	0.0250
1.97	0.9756	0.0244
1.98	0.9761	0.0239
1.99	0.9767	0.0233
2.00	0.9772	0.0228
2.01	0.9778	0.0222
2.02	0.9783	0.0217
2.03	0.9788	0.0212
2.04	0.9793	0.0207
2.05	0.9798	0.0202

z-score	Area Below	Area Above
2.06	0.9803	0.0197
2.07	0.9808	0.0192
2.08	0.9812	0.0188
2.09	0.9817	0.0183
2.10	0.9821	0.0179
2.11	0.9826	0.0174
2.12	0.9830	0.0170
2.13	0.9834	0.0166
2.14	0.9838	0.0162
2.15	0.9842	0.0158
2.16	0.9846	0.0154
2.17	0.9850	0.0150
2.18	0.9854	0.0146
2.19	0.9857	0.0143
2.20	0.9861	0.0139
2.21	0.9864	0.0136
2.22	0.9868	0.0132
2.23	0.9871	0.0129
2.24	0.9875	0.0125
2.25	0.9878	0.0122
2.26	0.9881	0.0119
2.27	0.9884	0.0116
2.28	0.9887	0.0113
2.29	0.9890	0.0110
2.30	0.9893	0.0107
2.31	0.9896	0.0104
2.32	0.9898	0.0102
2.33	0.9901	0.0099
2.34	0.9904	0.0096
2.35	0.9906	0.0094
2.36	0.9909	0.0091
2.37	0.9911	0.0089
2.38	0.9913	0.0087
2.39	0.9916	0.0084
2.40	0.9918	0.0082
2.41	0.9920	0.0080
2.42	0.9922	0.0078
2.43	0.9925	0.0075
2.44	0.9927	0.0073
2.45	0.9929	0.0071
2.46	0.9931	0.0069

z-score	Area Below	Area Above
2.47	0.9932	0.0068
2.48	0.9934	0.0066
2.49	0.9936	0.0064
2.50	0.9938	0.0062
2.51	0.9940	0.0060
2.52	0.9941	0.0059
2.53	0.9943	0.0057
2.54	0.9945	0.0055
2.55	0.9946	0.0054
2.56	0.9948	0.0052
2.57	0.9949	0.0051
2.58	0.9951	0.0049
2.59	0.9952	0.0048
2.60	0.9953	0.0047
2.61	0.9955	0.0045
2.62	0.9956	0.0044
2.63	0.9957	0.0043
2.64	0.9960	0.0040
2.66	0.9961	0.0039
2.67	0.9962	0.0038
2.68	0.9963	0.0037
2.69	0.9964	0.0036
2.70	0.9965	0.0035
2.71	0.9966	0.0034
2.72	0.9967	0.0033
2.73	0.9968	0.0032
2.74	0.9969	0.0031
2.75	0.9970	0.0030
2.76	0.9971	0.0029
2.77	0.9972	0.0028
2.78	0.9973	0.0027
2.79	0.9974	0.0026
2.80	0.9974	0.0026
2.81	0.9975	0.0025
2.82	0.9976	0.0024
2.83	0.9977	0.0023
2.84	0.9977	0.0023
2.85	0.9978	0.0022
2.86	0.9979	0.0021
2.87	0.9979	0.0021
2.88	0.9980	0.0020

z-score	Area Below	Area Above
2.89	0.9981	0.0019
2.90	0.9981	0.0019
2.91	0.9982	0.0018
2.92	0.9982	0.0018
2.93	0.9983	0.0017
2.94	0.9984	0.0016
2.95	0.9984	0.0016
2.96	0.9985	0.0015
2.97	0.9985	0.0015
2.98	0.9986	0.0014
2.99	0.9986	0.0014
3.00	0.9987	0.0013
3.01	0.9987	0.0013
3.02	0.9987	0.0013
3.03	0.9988	0.0012
3.04	0.9988	0.0012
3.05	0.9989	0.0011
3.06	0.9989	0.0011
3.07	0.9989	0.0011
3.08	0.9990	0.0010
3.09	0.9990	0.0010
3.10	0.9990	0.0010
3.11	0.9991	0.0009
3.12	0.9991	0.0009
3.13	0.9991	0.0009
3.14	0.9992	0.0008
3.15	0.9992	0.0008
3.16	0.9992	0.0008
3.17	0.9992	0.0008
3.18	0.9993	0.0007
3.19	0.9993	0.0007
3.20	0.9993	0.0007
3.21	0.9993	0.0007
3.22	0.9994	0.0006
3.23	0.9994	0.0006
3.24	0.9994	0.0006
3.25	0.9994	0.0006
3.26	0.9994	0.0006
3.27	0.9995	0.0005
3.28	0.9995	0.0005
3.29	0.9995	0.0005

z-score	Area Below	Area Above
3.30	0.9995	0.0005
3.31	0.9995	0.0005
3.32	0.9995	0.0005
3.33	0.9996	0.0004
3.34	0.9996	0.0004
3.35	0.9996	0.0004
3.36	0.9996	0.0004
3.37	0.9996	0.0004
3.38	0.9996	0.0004
3.39	0.9997	0.0003
3.40	0.9997	0.0003
3.41	0.9997	0.0003
3.42	0.9997	0.0003
3.43	0.9997	0.0003
3.44	0.9997	0.0003
3.45	0.9997	0.0003
3.46	0.9997	0.0003
3.47	0.9997	0.0003
3.48	0.9997	0.0003
3.49	0.9998	0.0002
3.50	0.9998	0.0002