**Areas Under The Standard Normal Curve**



|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Z** | **0.00** | **0.01** | **0.02** | **0.03** | **0.04** | **0.05** | **0.06** | **0.07** | **0.08** | **0.09** |
| **-3.4** | **0.0003** | **0.0003** | **0.0003** | **0.0003** | **0.0003** | **0.0003** | **0.0003** | **0.0003** | **0.0003** | **0.0002** |
| **-3.3** | **0.0005** | **0.0005** | **0.0005** | **0.0004** | **0.0004** | **0.0004** | **0.0004** | **0.0004** | **0.0004** | **0.0003** |
| **-3.2** | **0.0007** | **0.0007** | **0.0006** | **0.0006** | **0.0006** | **0.0006** | **0.0006** | **0.0005** | **0.0005** | **0.0005** |
| **-3.1** | **0.0010** | **0.0009** | **0.0009** | **0.0009** | **0.0008** | **0.0008** | **0.0008** | **0.0008** | **0.0007** | **0.0007** |
| **-3.0** | **0.0013** | **0.0013** | **0.0013** | **0.0012** | **0.0012** | **0.0011** | **0.0011** | **0.0011** | **0.0010** | **0.0010** |
| **-2.9** | **0.0019** | **0.0018** | **0.0018** | **0.0017** | **0.0016** | **0.0016** | **0.0015** | **0.0015** | **0.0014** | **0.0014** |
| **-2.8** | **0.0026** | **0.0025** | **0.0024** | **0.0023** | **0.0023** | **0.0022** | **0.0021** | **0.0021** | **0.0020** | **0.0019** |
| **-2.7** | **0.0035** | **0.0034** | **0.0033** | **0.0032** | **0.0031** | **0.0030** | **0.0029** | **0.0028** | **0.0027** | **0.0026** |
| **-2.6** | **0.0047** | **0.0045** | **0.0044** | **0.0043** | **0.0041** | **0.0040** | **0.0039** | **0.0038** | **0.0037** | **0.0036** |
| **-2.5** | **0.0062** | **0.0060** | **0.0059** | **0.0057** | **0.0055** | **0.0054** | **0.0052** | **0.0051** | **0.0049** | **0.0048** |
| **-2.4** | **0.0082** | **0.0080** | **0.0078** | **0.0075** | **0.0073** | **0.0071** | **0.0069** | **0.0068** | **0.0066** | **0.0064** |
| **-2.3** | **0.0107** | **0.0104** | **0.0102** | **0.0099** | **0.0096** | **0.0094** | **0.0091** | **0.0089** | **0.0087** | **0.0084** |
| **-2.2** | **0.0139** | **0.0136** | **0.0132** | **0.0129** | **0.0125** | **0.0122** | **0.0119** | **0.0116** | **0.0113** | **0.0110** |
| **-2.1** | **0.0179** | **0.0174** | **0.0170** | **0.0166** | **0.0162** | **0.0158** | **0.0154** | **0.0150** | **0.0146** | **0.0143** |
| **-2.0** | **0.0228** | **0.0222** | **0.0217** | **0.0212** | **0.0207** | **0.0202** | **0.0197** | **0.0192** | **0.0188** | **0.0183** |
| **-1.9** | **0.0287** | **0.0281** | **0.0274** | **0.0268** | **0.0262** | **0.0256** | **0.0250** | **0.0244** | **0.0239** | **0.0233** |
| **-1.8** | **0.0359** | **0.0351** | **0.0344** | **0.0336** | **0.0329** | **0.0322** | **0.0314** | **0.0307** | **0.0301** | **0.0294** |
| **-1.7** | **0.0446** | **0.0436** | **0.0427** | **0.0418** | **0.0409** | **0.0401** | **0.0392** | **0.0384** | **0.0375** | **0.0367** |
| **-1.6** | **0.0548** | **0.0537** | **0.0526** | **0.0516** | **0.0505** | **0.0495** | **0.0485** | **0.0475** | **0.0465** | **0.0455** |
| **-1.5** | **0.0668** | **0.0655** | **0.0643** | **0.0630** | **0.0618** | **0.0606** | **0.0594** | **0.0582** | **0.0571** | **0.0559** |
| **-1.4** | **0.0808** | **0.0793** | **0.0778** | **0.0764** | **0.0749** | **0.0735** | **0.0721** | **0.0708** | **0.0694** | **0.0681** |
| **-1.3** | **0.0968** | **0.0951** | **0.0934** | **0.0918** | **0.0901** | **0.0885** | **0.0869** | **0.0853** | **0.0838** | **0.0823** |
| **-1.2** | **0.1151** | **0.1131** | **0.1112** | **0.1093** | **0.1075** | **0.1056** | **0.1038** | **0.1020** | **0.1003** | **0.0985** |
| **-1.1** | **0.1357** | **0.1335** | **0.1314** | **0.1292** | **0.1271** | **0.1251** | **0.1230** | **0.1210** | **0.1190** | **0.1170** |
| **-1.0** | **0.1587** | **0.1562** | **0.1539** | **0.1515** | **0.1492** | **0.1469** | **0.1446** | **0.1423** | **0.1401** | **0.1379** |
| **-0.9** | **0.1841** | **0.1814** | **0.1788** | **0.1762** | **0.1736** | **0.1711** | **0.1685** | **0.1660** | **0.1635** | **0.1611** |
| **-0.8** | **0.2119** | **0.2090** | **0.2061** | **0.2033** | **0.2005** | **0.1977** | **0.1949** | **0.1922** | **0.1894** | **0.1867** |
| **-0.7** | **0.2420** | **0.2389** | **0.2358** | **0.2327** | **0.2296** | **0.2266** | **0.2236** | **0.2206** | **0.2177** | **0.2148** |
| **-0.6** | **0.2743** | **0.2709** | **0.2676** | **0.2643** | **0.2611** | **0.2578** | **0.2546** | **0.2514** | **0.2483** | **0.2451** |
| **-0.5** | **0.3085** | **0.3050** | **0.3015** | **0.2981** | **0.2946** | **0.2912** | **0.2877** | **0.2843** | **0.2810** | **0.2776** |
| **-0.4** | **0.3446** | **0.3409** | **0.3372** | **0.3336** | **0.3300** | **0.3264** | **0.3228** | **0.3192** | **0.3156** | **0.3121** |
| **-0.3** | **0.3821** | **0.3783** | **0.3745** | **0.3707** | **0.3669** | **0.3632** | **0.3594** | **0.3557** | **0.3520** | **0.3483** |
| **-0.2** | **0.4207** | **0.4168** | **0.4129** | **0.4090** | **0.4052** | **0.4013** | **0.3974** | **0.3936** | **0.3897** | **0.3859** |
| **-0.1** | **0.4602** | **0.4562** | **0.4522** | **0.4483** | **0.4443** | **0.4404** | **0.4364** | **0.4325** | **0.4286** | **0.4247** |
| **-0.0** | **0.5000** | **0.4960** | **0.4920** | **0.4880** | **0.4840** | **0.4801** | **0.4761** | **0.4721** | **0.4681** | **0.4641** |
| **0.0** | **0.5000** | **0.5040** | **0.5080** | **0.5120** | **0.5160** | **0.5199** | **0.5239** | **0.5279** | **0.5319** | **0.5359** |
| **0.1** | **0.5398** | **0.5438** | **0.5478** | **0.5517** | **0.5557** | **0.5596** | **0.5636** | **0.5675** | **0.5714** | **0.5753** |
| **0.2** | **0.5793** | **0.5832** | **0.5871** | **0.5910** | **0.5948** | **0.5987** | **0.6026** | **0.6064** | **0.6103** | **0.6141** |
| **0.3** | **0.6179** | **0.6217** | **0.6255** | **0.6293** | **0.6331** | **0.6368** | **0.6406** | **0.6443** | **0.6480** | **0.6517** |
| **0.4** | **0.6554** | **0.6591** | **0.6628** | **0.6664** | **0.6700** | **0.6736** | **0.6772** | **0.6808** | **0.6844** | **0.6879** |
| **0.5** | **0.6915** | **0.6950** | **0.6985** | **0.7019** | **0.7054** | **0.7088** | **0.7123** | **0.7157** | **0.7190** | **0.7224** |
| **0.6** | **0.7257** | **0.7291** | **0.7324** | **0.7357** | **0.7389** | **0.7422** | **0.7454** | **0.7486** | **0.7517** | **0.7549** |
| **0.7** | **0.7580** | **0.7611** | **0.7642** | **0.7673** | **0.7704** | **0.7734** | **0.7764** | **0.7794** | **0.7823** | **0.7852** |
| **0.8** | **0.7881** | **0.7910** | **0.7939** | **0.7967** | **0.7995** | **0.8023** | **0.8051** | **0.8078** | **0.8106** | **0.8133** |
| **0.9** | **0.8159** | **0.8186** | **0.8212** | **0.8238** | **0.8264** | **0.8289** | **0.8315** | **0.8340** | **0.8365** | **0.8389** |
| **1.0** | **0.8413** | **0.8438** | **0.8461** | **0.8485** | **0.8508** | **0.8531** | **0.8554** | **0.8577** | **0.8599** | **0.8621** |
| **1.1** | **0.8643** | **0.8665** | **0.8686** | **0.8708** | **0.8729** | **0.8749** | **0.8770** | **0.8790** | **0.8810** | **0.8830** |
| **1.2** | **0.8849** | **0.8869** | **0.8888** | **0.8907** | **0.8925** | **0.8944** | **0.8962** | **0.8980** | **0.8997** | **0.9015** |
| **1.3** | **0.9032** | **0.9049** | **0.9066** | **0.9082** | **0.9099** | **0.9115** | **0.9131** | **0.9147** | **0.9162** | **0.9177** |
| **1.4** | **0.9192** | **0.9207** | **0.9222** | **0.9236** | **0.9251** | **0.9265** | **0.9279** | **0.9292** | **0.9306** | **0.9319** |
| **1.5** | **0.9332** | **0.9345** | **0.9357** | **0.9370** | **0.9382** | **0.9394** | **0.9406** | **0.9418** | **0.9429** | **0.9441** |
| **1.6** | **0.9452** | **0.9463** | **0.9474** | **0.9484** | **0.9495** | **0.9505** | **0.9515** | **0.9525** | **0.9535** | **0.9545** |
| **1.7** | **0.9554** | **0.9564** | **0.9573** | **0.9582** | **0.9591** | **0.9599** | **0.9608** | **0.9616** | **0.9625** | **0.9633** |
| **1.8** | **0.9641** | **0.9649** | **0.9656** | **0.9664** | **0.9671** | **0.9678** | **0.9686** | **0.9693** | **0.9699** | **0.9706** |
| **1.9** | **0.9713** | **0.9719** | **0.9726** | **0.9732** | **0.9738** | **0.9744** | **0.9750** | **0.9756** | **0.9761** | **0.9767** |
| **2.0** | **0.9772** | **0.9778** | **0.9783** | **0.9788** | **0.9793** | **0.9798** | **0.9803** | **0.9808** | **0.9812** | **0.9817** |
| **2.1** | **0.9821** | **0.9826** | **0.9830** | **0.9834** | **0.9838** | **0.9842** | **0.9846** | **0.9850** | **0.9854** | **0.9857** |
| **2.2** | **0.9861** | **0.9864** | **0.9868** | **0.9871** | **0.9875** | **0.9878** | **0.9881** | **0.9884** | **0.9887** | **0.9890** |
| **2.3** | **0.9893** | **0.9896** | **0.9898** | **0.9901** | **0.9904** | **0.9906** | **0.9909** | **0.9911** | **0.9913** | **0.9916** |
| **2.4** | **0.9918** | **0.9920** | **0.9922** | **0.9925** | **0.9927** | **0.9929** | **0.9931** | **0.9932** | **0.9934** | **0.9936** |
| **2.5** | **0.9938** | **0.9940** | **0.9941** | **0.9943** | **0.9945** | **0.9946** | **0.9948** | **0.9949** | **0.9951** | **0.9952** |
| **2.6** | **0.9953** | **0.9955** | **0.9956** | **0.9957** | **0.9959** | **0.9960** | **0.9961** | **0.9962** | **0.9963** | **0.9964** |
| **2.7** | **0.9965** | **0.9966** | **0.9967** | **0.9968** | **0.9969** | **0.9970** | **0.9971** | **0.9972** | **0.9973** | **0.9974** |
| **2.8** | **0.9974** | **0.9975** | **0.9976** | **0.9977** | **0.9977** | **0.9978** | **0.9979** | **0.9979** | **0.9980** | **0.9981** |
| **2.9** | **0.9981** | **0.9982** | **0.9982** | **0.9983** | **0.9984** | **0.9984** | **0.9985** | **0.9985** | **0.9986** | **0.9986** |
| **3.0** | **0.9987** | **0.9987** | **0.9987** | **0.9988** | **0.9988** | **0.9989** | **0.9989** | **0.9989** | **0.9990** | **0.9990** |
| **3.1** | **0.9990** | **0.9991** | **0.9991** | **0.9991** | **0.9992** | **0.9992** | **0.9992** | **0.9992** | **0.9993** | **0.9993** |
| **3.2** | **0.9993** | **0.9993** | **0.9994** | **0.9994** | **0.9994** | **0.9994** | **0.9994** | **0.9995** | **0.9995** | **0.9995** |
| **3.3** | **0.9995** | **0.9995** | **0.9995** | **0.9996** | **0.9996** | **0.9996** | **0.9996** | **0.9996** | **0.9996** | **0.9997** |
| **3.4** | **0.9997** | **0.9997** | **0.9997** | **0.9997** | **0.9997** | **0.9997** | **0.9997** | **0.9997** | **0.9997** | **0.9998** |