Department of Mathematics

ST221: Introduction to Statistics

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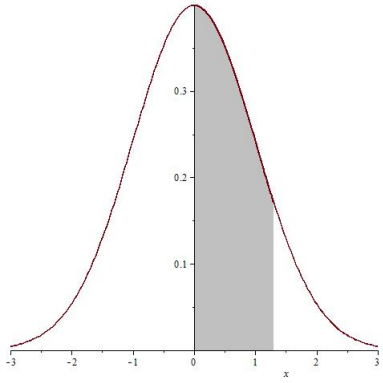
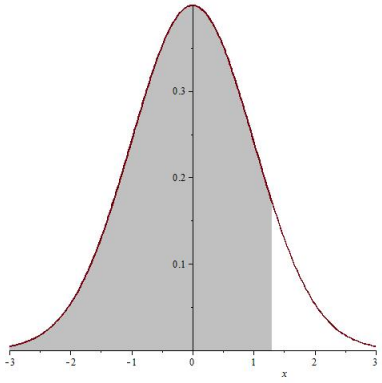
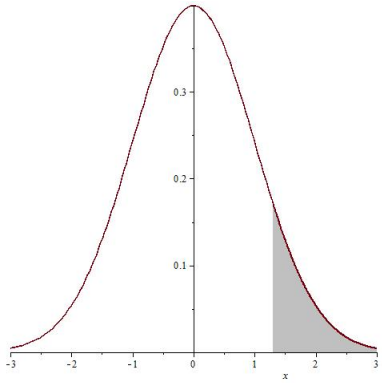
Some examples using the Standard Normal Tables:



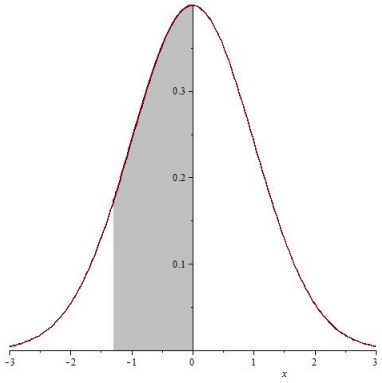
This shaded area shows $P(0 < Z < 1.31) = 0.4049$, which obtained from the Standard Normal Table.



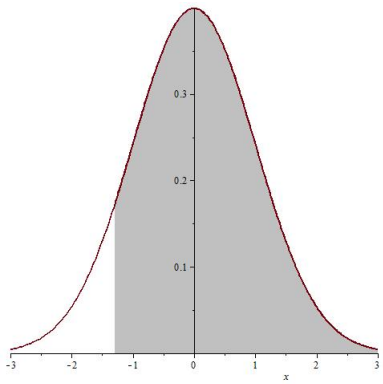
This shaded area shows $P(Z < 1.31) = 0.5 + 0.4049$, which is obtained by adding 0.5 to previous answer.



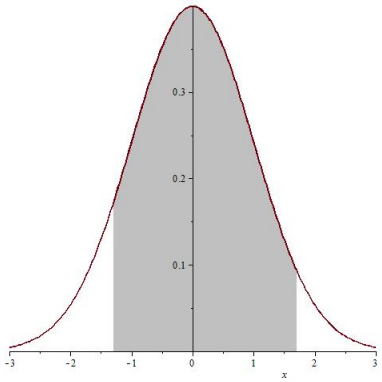
This shaded area shows $P(Z > 1.31) = 0.5 - 0.4049$, which obtained subtracting the first answer from 0.5.



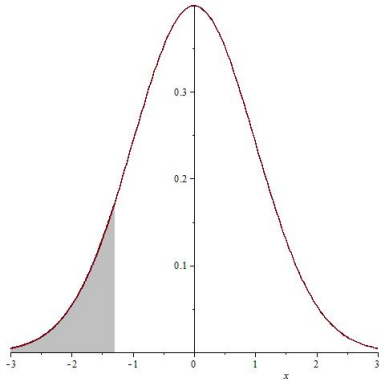
This shaded area shows $P(-1.31 < Z < 0) = 0.4049$, which by symmetry equals the first answer.



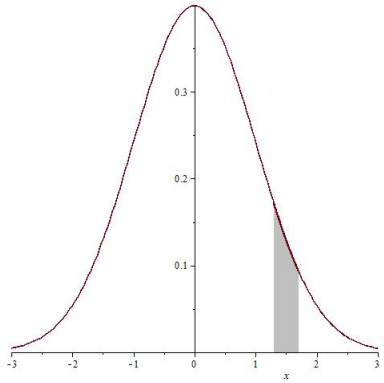
This shaded area shows $P(Z > -1.31) = 0.5 + 0.4049$, which, by symmetry, equals the second answer.



This shaded area shows $P(-1.31 < Z < 1.72) = P(-1.31 < Z < 0) + P(0 < Z < 1.72) = 0.4049 + 0.4573$. The answer is obtained by adding the areas to the left and right of the $y-$axis.



This shaded area shows $P(Z < -1.31) = 0.5 - 0.4049$, which, by symmetry, equals the third answer.



This shaded area shows $P(1.31 < Z < 1.72) = P(0 < Z < 1.72) - P(0 < Z < 1.31) = 0.4573 - 0.4049$. The answer is obtained by subtracting the two relevant areas