Normal Distribution: Areas to the Left and Right of \boldsymbol{x}^*

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The arrow in the graph below points to the area to the left of x. This area is represented by the probability P(X < x). Normal tables, computers, and calculators provide or calculate the probability P(X < x).



The area to the right is then P(X > x) = 1 - P(X < x). Remember, P(X < x) = Area to the left of the vertical line through x. P(X > x) = 1 - P(X < x) =. Area to the right of the vertical line through xP(X < x) is the same as $P(X \le x)$ and P(X > x) is the same as $P(X \ge x)$ for continuous distributions.

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