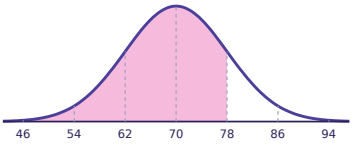
Normal Distributions & z-Scores · 1

The SAT math scores are normally distributed with mean 520 and standard deviation 100. Find the z-score of 420.

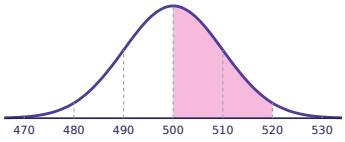
Normal Distributions & z-Scores · 2

About what percent of the data lies in the shaded region? (Use the 68-95-99.7 rule.)



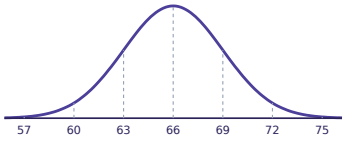
Normal Distributions & z-Scores · 3

The cereal box weights in grams are normally distributed with mean 500 and standard deviation 10. Out of 600 values, about how many are between 500 and 520?



Normal Distributions & z-Scores · 4

The adult heights in inches are normally distributed with mean 66 and standard deviation 3. About what percent of the data is above 75?

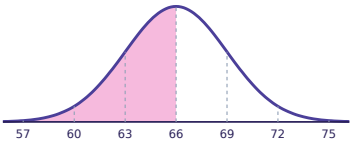


Normal Distributions & z-Scores · 5

The battery lifetimes in hours are normally distributed with mean 40 and standard deviation 5. Which value has a z-score of -2?

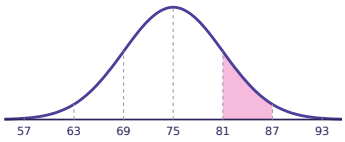
Normal Distributions & z-Scores · 6

About what percent of the data lies in the shaded region? (Use the 68-95-99.7 rule.)



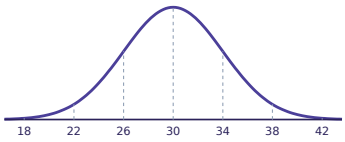
Normal Distributions & z-Scores · 7

The test scores are normally distributed with mean 75 and standard deviation 6. Out of 600 values, about how many are between 81 and 87?



Normal Distributions & z-Scores · 8

The commute times in minutes are normally distributed with mean 30 and standard deviation 4. About what percent of the data is above 22?



Normal Distributions & z-Scores · 2

ANSWER

83.85%

Normal Distributions & z-Scores · 1

ANSWER

-1

Normal Distributions & z-Scores · 4

ANSWER

0.15%

Normal Distributions & z-Scores · 3

ANSWER

285

Normal Distributions & z-Scores · 6

ANSWER

49.85%

Normal Distributions & z-Scores · 5

ANSWER

30

Normal Distributions & z-Scores · 8

ANSWER

97.5%

Normal Distributions & z-Scores · 7

ANSWER

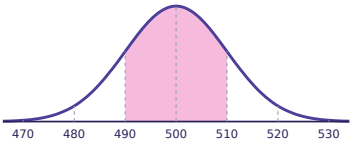
81

Normal Distributions & z-Scores · 9

The commute times in minutes are normally distributed with mean 30 and standard deviation 4. Find the z-score of 34.

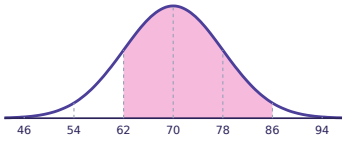
Normal Distributions & z-Scores · 10

About what percent of the data lies in the shaded region? (Use the 68-95-99.7 rule.)



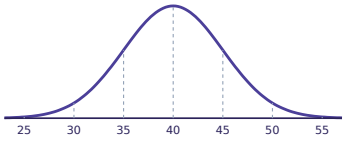
Normal Distributions & z-Scores · 11

The test scores are normally distributed with mean 70 and standard deviation 8. Out of 600 values, about how many are between 62 and 86?



Normal Distributions & z-Scores · 12

The battery lifetimes in hours are normally distributed with mean 40 and standard deviation 5. About what percent of the data is above 45?

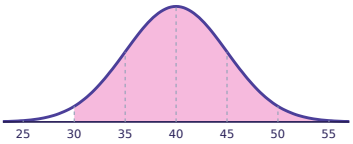


Normal Distributions & z-Scores · 13

The SAT math scores are normally distributed with mean 520 and standard deviation 100. Which value has a z-score of 2?

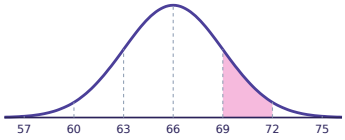
Normal Distributions & z-Scores · 14

About what percent of the data lies in the shaded region? (Use the 68-95-99.7 rule.)



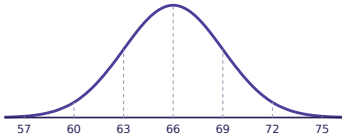
Normal Distributions & z-Scores · 15

The adult heights in inches are normally distributed with mean 66 and standard deviation 3. Out of 600 values, about how many are between 69 and 72?



Normal Distributions & z-Scores · 16

The adult heights in inches are normally distributed with mean 66 and standard deviation 3. About what percent of the data is above 63?



Normal Distributions & z-Scores · 10

ANSWER

68%

Normal Distributions & z-Scores · 9

ANSWER

1

Normal Distributions & z-Scores · 12

ANSWER

16%

Normal Distributions & z-Scores · 11

ANSWER

489

Normal Distributions & z-Scores · 14

ANSWER

97.35%

Normal Distributions & z-Scores · 13

ANSWER

720

Normal Distributions & z-Scores · 16

ANSWER

84%

Normal Distributions & z-Scores · 15

ANSWER

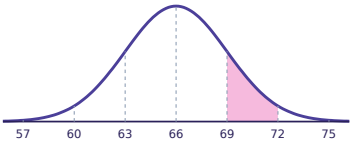
81

Normal Distributions & z-Scores · 17

The battery lifetimes in hours are normally distributed with mean 40 and standard deviation 5. Find the z-score of 37.5.

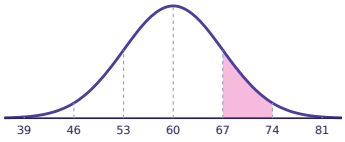
Normal Distributions & z-Scores · 18

About what percent of the data lies in the shaded region? (Use the 68-95-99.7 rule.)



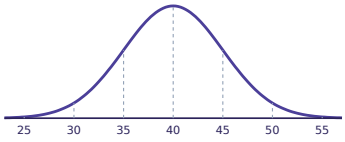
Normal Distributions & z-Scores · 19

The daily high temperatures in °F are normally distributed with mean 60 and standard deviation 7. Out of 600 values, about how many are between 67 and 74?



Normal Distributions & z-Scores · 20

The battery lifetimes in hours are normally distributed with mean 40 and standard deviation 5. About what percent of the data is above 25?

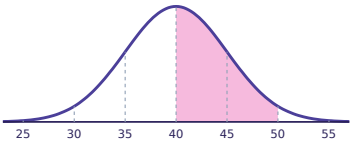


Normal Distributions & z-Scores · 21

The SAT math scores are normally distributed with mean 520 and standard deviation 100. Which value has a z-score of 2.5?

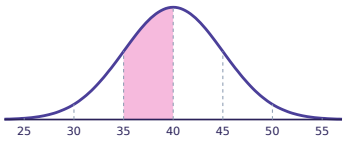
Normal Distributions & z-Scores · 22

About what percent of the data lies in the shaded region? (Use the 68-95-99.7 rule.)



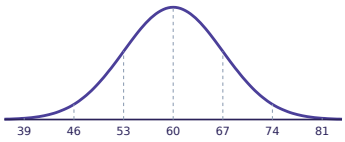
Normal Distributions & z-Scores · 23

The battery lifetimes in hours are normally distributed with mean 40 and standard deviation 5. Out of 400 values, about how many are between 35 and 40?



Normal Distributions & z-Scores · 24

The daily high temperatures in °F are normally distributed with mean 60 and standard deviation 7. About what percent of the data is above 74?



Normal Distributions & z-Scores · 18

ANSWER

13.5%

Normal Distributions & z-Scores · 17

ANSWER

-0.5

Normal Distributions & z-Scores · 20

ANSWER

99.85%

Normal Distributions & z-Scores · 19

ANSWER

81

Normal Distributions & z-Scores · 22

ANSWER

47.5%

Normal Distributions & z-Scores · 21

ANSWER

770

Normal Distributions & z-Scores · 24

ANSWER

2.5%

Normal Distributions & z-Scores · 23

ANSWER

136