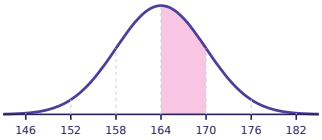
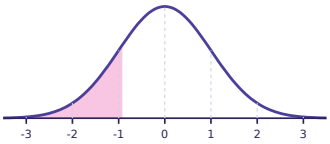
Normal Distribution & z-Scores · 1

The adult heights (cm) are normally distributed with mean 164 and standard deviation 6. Use the 68-95-99.7 rule: what percent of the data lies between 164 and 170?



Normal Distribution & z-Scores · 2

Z is a standard normal variable. Find P(Z < -0.92). Round to four decimal places.

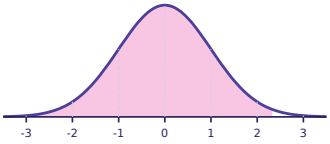


Normal Distribution & z-Scores · 3

The exam scores are normally distributed with mean 68 and standard deviation 8. Find the z-score of a score of 56.

Normal Distribution & z-Scores · 4

Z is a standard normal variable. Find P(Z < 2.33). Round to four decimal places.

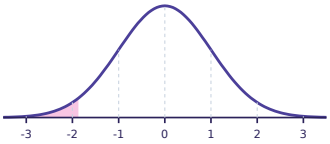


Normal Distribution & z-Scores · 5

The adult heights (cm) are normally distributed with mean 180 and standard deviation 6. What value has a z-score of 1?

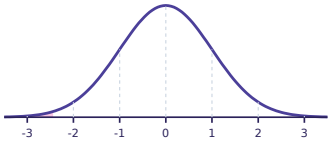
Normal Distribution & z-Scores · 6

Z is a standard normal variable. Find P(Z < -1.87). Round to four decimal places.



Normal Distribution & z-Scores · 7

Z is a standard normal variable. Find P(Z < -2.44). Round to four decimal places.



Normal Distribution & z-Scores · 8

The adult heights (cm) are normally distributed with mean 167 and standard deviation 10. What value has a z-score of -2.5?

Normal Distribution & z-Scores · 2

ANSWER

0.1788

Normal Distribution & z-Scores · 1

ANSWER

34

Normal Distribution & z-Scores · 4

ANSWER

0.9901

Normal Distribution & z-Scores · 3

ANSWER

-1.5

Normal Distribution & z-Scores · 6

ANSWER

0.0307

Normal Distribution & z-Scores · 5

ANSWER

186

Normal Distribution & z-Scores · 8

ANSWER

142

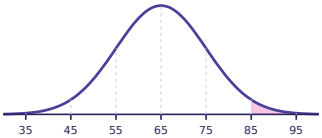
Normal Distribution & z-Scores · 7

ANSWER

0.0073

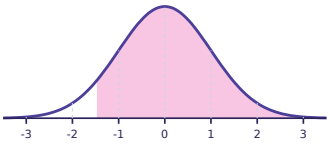
Normal Distribution & z-Scores · 9

The exam scores are normally distributed with mean 65 and standard deviation 10. Use the 68-95-99.7 rule: what percent of the data lies above 85?



Normal Distribution & z-Scores · 10

Z is a standard normal variable. Find P(Z > -1.47). Round to four decimal places.

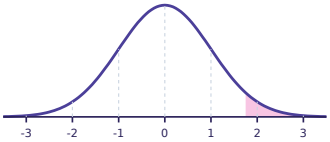


Normal Distribution & z-Scores · 11

The adult heights (cm) are normally distributed with mean 163 and standard deviation 8. Find the z-score of a height of 151.

Normal Distribution & z-Scores · 12

Z is a standard normal variable. Find P(Z > 1.75). Round to four decimal places.



Normal Distribution & z-Scores · 13

The daily commute times (minutes) are normally distributed with mean 35 and standard deviation 5. What value has a z-score of -2?

Normal Distribution & z-Scores · 14

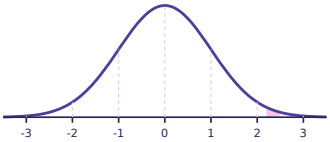
The daily commute times (minutes) are normally distributed with mean 35 and standard deviation 4. What value has a z-score of 3?

Normal Distribution & z-Scores · 15

The adult heights (cm) are normally distributed with mean 167 and standard deviation 6. Find the z-score of a height of 149.

Normal Distribution & z-Scores · 16

Z is a standard normal variable. Find P(2.20 < Z < 2.49). Round to four decimal places.



Normal Distribution & z-Scores · 10

ANSWER

0.9292

Normal Distribution & z-Scores · 9

ANSWER

2.5

Normal Distribution & z-Scores · 12

ANSWER

0.0401

Normal Distribution & z-Scores · 11

ANSWER

-1.5

Normal Distribution & z-Scores · 14

ANSWER

47

Normal Distribution & z-Scores · 13

ANSWER

25

Normal Distribution & z-Scores · 16

ANSWER

0.0075

Normal Distribution & z-Scores · 15

ANSWER

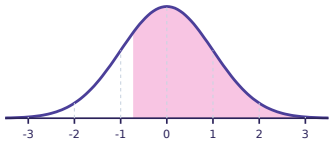
-3

Normal Distribution & z-Scores · 17

The exam scores are normally distributed with mean 71 and standard deviation 8. Find the z-score of a score of 87.

Normal Distribution & z-Scores · 18

Z is a standard normal variable. Find P(Z > -0.73). Round to four decimal places.



Normal Distribution & z-Scores · 19

The battery lifetimes (hours) are normally distributed with mean 550 and standard deviation 40. What value has a z-score of -1.5?

Normal Distribution & z-Scores · 20

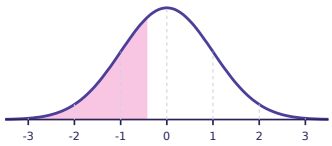
The daily commute times (minutes) are normally distributed with mean 40 and standard deviation 4. Find the z-score of a commute of 28.

Normal Distribution & z-Scores · 21

The daily commute times (minutes) are normally distributed with mean 26 and standard deviation 8. Find the z-score of a commute of 18.

Normal Distribution & z-Scores · 22

Z is a standard normal variable. Find P(Z < -0.42). Round to four decimal places.

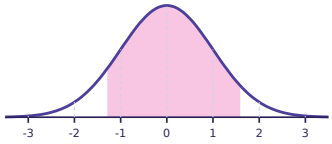


Normal Distribution & z-Scores · 23

The exam scores are normally distributed with mean 73 and standard deviation 4. Find the z-score of a score of 75.

Normal Distribution & z-Scores · 24

Z is a standard normal variable. Find P(-1.29 < Z < 1.59). Round to four decimal places.



Normal Distribution & z-Scores · 18

ANSWER

0.7673

Normal Distribution & z-Scores · 17

ANSWER

2

Normal Distribution & z-Scores · 20

ANSWER

-3

Normal Distribution & z-Scores · 19

ANSWER

490

Normal Distribution & z-Scores · 22

ANSWER

0.3372

Normal Distribution & z-Scores · 21

ANSWER

-1

Normal Distribution & z-Scores · 24

ANSWER

0.8456

Normal Distribution & z-Scores · 23

ANSWER

0.5