Confidence Intervals for a Mean & Proportion · 1

What critical value z* is used for a 99% confidence interval?

Confidence Intervals for a Mean & Proportion · 2

A random sample of 49 gives a sample mean of 68 centimeters for the height of sunflowers. The population standard deviation is σ = 14 centimeters. Find the margin of error for a 95% confidence interval for the mean.

Confidence Intervals for a Mean & Proportion · 3

A 95% confidence interval for the mean of the weight of bags of rice is (76.4, 86.8) ounces. Find the margin of error.

Confidence Intervals for a Mean & Proportion · 4

A 95% confidence interval for the mean of the height of sunflowers is (56.9, 68.7) centimeters. Find the sample mean.

Confidence Intervals for a Mean & Proportion · 5

A 95% confidence interval for the mean of the battery life of a phone model is (32.3, 36.5) hours. Find the margin of error.

Confidence Intervals for a Mean & Proportion · 6

A 95% confidence interval for the mean of the score on a reading test is (26.1, 35.1) points. Find the margin of error.

Confidence Intervals for a Mean & Proportion · 7

A random sample of 225 gives a sample mean of 73 centimeters for the height of sunflowers. The population standard deviation is σ = 30 centimeters. Find the margin of error for a 95% confidence interval for the mean.

Confidence Intervals for a Mean & Proportion · 8

A random sample of 36 gives a sample mean of 62 hours for the battery life of a phone model. The population standard deviation is σ = 3 hours. Find the 95% confidence interval for the population mean.

Confidence Intervals for a Mean & Proportion · 2

ANSWER

3.92

Confidence Intervals for a Mean & Proportion · 1

ANSWER

2.576

Confidence Intervals for a Mean & Proportion · 4

ANSWER

62.8

Confidence Intervals for a Mean & Proportion · 3

ANSWER

5.2

Confidence Intervals for a Mean & Proportion · 6

ANSWER

4.5

Confidence Intervals for a Mean & Proportion · 5

ANSWER

2.1

Confidence Intervals for a Mean & Proportion · 8

ANSWER

(61.02, 62.98)

Confidence Intervals for a Mean & Proportion · 7

ANSWER

3.92

Confidence Intervals for a Mean & Proportion · 9

A 95% confidence interval for the mean of the weight of bags of rice is (87.4, 91.0) ounces. Find the sample mean.

Confidence Intervals for a Mean & Proportion · 10

A confidence interval for a mean is computed. If the sample size is decreased from 400 to 100 (everything else the same), does the interval get wider or narrower?

Confidence Intervals for a Mean & Proportion · 11

In a random sample of 900 teens, 810 own a tablet. Find the margin of error for a 95% confidence interval for the proportion of all teens who own a tablet.

Confidence Intervals for a Mean & Proportion · 12

A random sample of 144 gives a sample mean of 17 minutes for the commute time of workers. The population standard deviation is $\sigma = 24$ minutes. Find the 95% confidence interval for the population mean.

Confidence Intervals for a Mean & Proportion · 13

A random sample of 225 gives a sample mean of 83 ounces for the weight of bags of rice. The population standard deviation is $\sigma = 30$ ounces. Find the margin of error for a 95% confidence interval for the mean.

Confidence Intervals for a Mean & Proportion · 14

A random sample of 100 gives a sample mean of 45 ounces for the weight of bags of rice. The population standard deviation is $\sigma = 5$ ounces. Find the margin of error for a 95% confidence interval for the mean.

Confidence Intervals for a Mean & Proportion · 15

A random sample of 81 gives a sample mean of 33 hours for the battery life of a phone model. The population standard deviation is $\sigma = 4.5$ hours. Find the 95% confidence interval for the population mean.

Confidence Intervals for a Mean & Proportion · 16

A 95% confidence interval for the mean of the score on a reading test is (48.7, 54.7) points. Find the sample mean.

Confidence Intervals for a Mean & Proportion · 10

ANSWER

wider

Confidence Intervals for a Mean & Proportion · 9

ANSWER

89.2

Confidence Intervals for a Mean & Proportion · 12

ANSWER

(13.08, 20.92)

Confidence Intervals for a Mean & Proportion · 11

ANSWER

0.02

Confidence Intervals for a Mean & Proportion · 14

ANSWER

0.98

Confidence Intervals for a Mean & Proportion · 13

ANSWER

3.92

Confidence Intervals for a Mean & Proportion · 16

ANSWER

51.7

Confidence Intervals for a Mean & Proportion · 15

ANSWER

(32.02, 33.98)

Confidence Intervals for a Mean & Proportion · 17

A confidence interval for a mean is computed. If the confidence level is lowered from 99% to 95% (everything else the same), does the interval get wider or narrower?

Confidence Intervals for a Mean & Proportion · 18

In a random sample of 100 students, 90 walk to school. Find the margin of error for a 95% confidence interval for the proportion of all students who walk to school.

Confidence Intervals for a Mean & Proportion · 19

A random sample of 16 gives a sample mean of 84 minutes for the commute time of workers. The population standard deviation is $\sigma = 12$ minutes. Find the margin of error for a 99% confidence interval for the mean.

Confidence Intervals for a Mean & Proportion · 20

A random sample of 100 gives a sample mean of 57 inches for the length of a fish species. The population standard deviation is $\sigma = 5$ inches. Find the 99% confidence interval for the population mean.

Confidence Intervals for a Mean & Proportion · 21

A random sample of 144 gives a sample mean of 62 inches for the length of a fish species. The population standard deviation is $\sigma = 30$ inches. Find the margin of error for a 95% confidence interval for the mean.

Confidence Intervals for a Mean & Proportion · 22

A 95% confidence interval for the mean of the battery life of a phone model is (46.5, 57.1) hours. Find the margin of error.

Confidence Intervals for a Mean & Proportion · 23

A 95% confidence interval for the mean of the battery life of a phone model is (82.3, 92.9) hours. Find the sample mean.

Confidence Intervals for a Mean & Proportion · 24

A 95% confidence interval for the mean of the weight of bags of rice is (79.5, 81.7) ounces. Find the margin of error.

Confidence Intervals for a Mean & Proportion · 18

ANSWER

0.059

Confidence Intervals for a Mean & Proportion · 17

ANSWER

narrower

Confidence Intervals for a Mean & Proportion · 20

ANSWER

(55.71, 58.29)

Confidence Intervals for a Mean & Proportion · 19

ANSWER

7.73

Confidence Intervals for a Mean & Proportion · 22

ANSWER

5.3

Confidence Intervals for a Mean & Proportion · 21

ANSWER

4.9

Confidence Intervals for a Mean & Proportion · 24

ANSWER

1.1

Confidence Intervals for a Mean & Proportion · 23

ANSWER

87.6