Task card 1 Confidence Intervals for a Mean &...

A random sample of 81 gives a sample mean of 88.4 centimeters for the height of sunflowers. The population standard deviation is σ = 13.5 centimeters. Find the 99% confidence interval for the population mean.

Task card 2 Confidence Intervals for a Mean &...

In a random sample of 400 drivers, 360 use a navigation app. Find the margin of error for a 90% confidence interval for the proportion of all drivers who use a navigation app.

Task card 3 Confidence Intervals for a Mean &...

In a random sample of 1600 drivers, 320 use a navigation app. Find the 90% confidence interval for the proportion of all drivers who use a navigation app.

Task card 4 Confidence Intervals for a Mean &...

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

Task card 5 Confidence Intervals for a Mean &...

How large a sample is needed to estimate a mean within E = 5 with 95% confidence, if σ = 10?

Task card 6 Confidence Intervals for a Mean &...

A random sample of 100 gives a sample mean of 66.1 points for the score on a reading test. The population standard deviation is σ = 10 points. Find the margin of error for a 99% confidence interval for the mean.

Task card 7 Confidence Intervals for a Mean &...

A 95% confidence interval for the mean of the battery life of a phone model is (22.2, 30.8) hours. Find the margin of error.

Task card 8 Confidence Intervals for a Mean &...

A random sample of 400 gives a sample mean of 68.4 hours for the battery life of a phone model. The population standard deviation is σ = 20 hours. Find the 95% confidence interval for the population mean.

Task card 9 Confidence Intervals for a Mean &...

In a random sample of 400 teens, 40 own a tablet. Find the margin of error for a 95% confidence interval for the proportion of all teens who own a tablet.

Task card 10 Confidence Intervals for a Mean &...

In a random sample of 400 drivers, 80 use a navigation app. Find the 90% confidence interval for the proportion of all drivers who use a navigation app.

Task card 11 Confidence Intervals for a Mean &...

How large a sample is needed to estimate a mean within E = 1 with 95% confidence, if σ = 6?

Task card 12 Confidence Intervals for a Mean &...

A random sample of 100 gives a sample mean of 16.8 points for the score on a reading test. The population standard deviation is σ = 30 points. Find the margin of error for a 99% confidence interval for the mean.

Task card 13 Confidence Intervals for a Mean &...

A 95% confidence interval for the mean of the score on a reading test is (24.5, 32.1) points. Find the sample mean.

Task card 14 Confidence Intervals for a Mean &...

A random sample of 64 gives a sample mean of 31.2 ounces for the weight of bags of rice. The population standard deviation is $\sigma = 32$ ounces. Find the 95% confidence interval for the population mean.

Task card 15 Confidence Intervals for a Mean &...

In a random sample of 2500 adults, 1250 exercise at least three times a week. Find the 90% confidence interval for the proportion of all adults who exercise at least three times a week.

Task card 16 Confidence Intervals for a Mean &...

How large a sample is needed to estimate a mean within $E = 4$ with 95% confidence, if $\sigma = 8$?

Task card 17 Confidence Intervals for a Mean &...

The sample size of a study is multiplied by 4, with everything else the same. The margin of error is multiplied by what number? (Give a fraction.)

Task card 18 Confidence Intervals for a Mean &...

In a random sample of 400 drivers, 320 use a navigation app. Find the margin of error for a 95% confidence interval for the proportion of all drivers who use a navigation app.

Task card 19 Confidence Intervals for a Mean &...

A random sample of 81 gives a sample mean of 75.9 points for the score on a reading test. The population standard deviation is $\sigma = 22.5$ points. Find the 99% confidence interval for the population mean.

Task card 20 Confidence Intervals for a Mean &...

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?

Task card 21 Confidence Intervals for a Mean &...

A random sample of 16 gives a sample mean of 40.1 minutes for the commute time of workers. The population standard deviation is $\sigma = 8$ minutes. Find the 90% confidence interval for the population mean.

Task card 22 Confidence Intervals for a Mean &...

In a random sample of 400 adults, 40 exercise at least three times a week. Find the margin of error for a 99% confidence interval for the proportion of all adults who exercise at least three times a week.

Task card 23 Confidence Intervals for a Mean &...

In a random sample of 100 teens, 50 own a tablet. Find the 90% confidence interval for the proportion of all teens who own a tablet.

Task card 24 Confidence Intervals for a Mean &...

How large a sample is needed to estimate a mean within $E = 1$ with 90% confidence, if $\sigma = 20$?

Confidence Intervals for a Mean & Proportion Task Cards

Recording sheet · Grade 12 · Use z* = 1.645 (90%), 1.96 (95%) or 2.576 (99%). Round margins of error for a mean to 2 decimal places and for a proportion to 3 decimal places, then add and subtract. Write intervals as (lower, upper). For lettered choices, write the letter.

Scan to check your answers

Name: _____ Date: _____

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24

Confidence Intervals for a Mean & Proportion Task Cards: Answer Key

Grade 12 · Medium

The answers online

1. (84.54, 92.26)	**2.** 0.025	**3.** (0.184, 0.216)
4. narrower	**5.** 16	**6.** 2.58
7. 4.3	**8.** (66.44, 70.36)	**9.** 0.029
10. (0.167, 0.233)	**11.** 139	**12.** 7.73
13. 28.3	**14.** (23.36, 39.04)	**15.** (0.484, 0.516)
16. 16	**17.** $\frac{1}{2}$	**18.** 0.039
19. (69.46, 82.34)	**20.** wider	**21.** (36.81, 43.39)
22. 0.039	**23.** (0.418, 0.582)	**24.** 1083