

<u>Course</u> > <u>Week 1</u>... > <u>10.7 Pr</u>... > Proble...

Problem Set 10

1

2.0/2.0 points (graded)

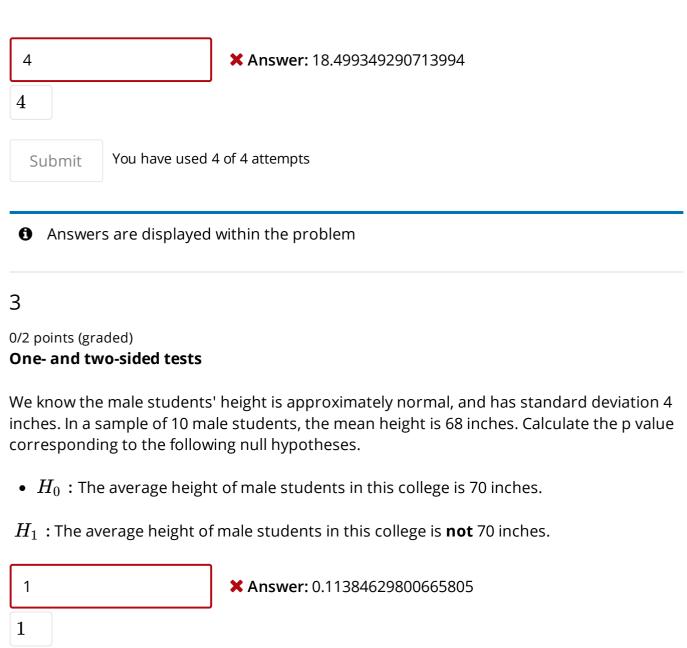
Which of the following will **increase** the length of the confidence interval?

✓ Increase confidence level ✓
Decrease confidence level
Increase sample size
✓ Decrease sample size ✓
Submit You have used 3 of 3 attempts
Answers are displayed within the problem

2

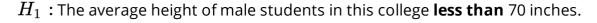
0/1 point (graded)

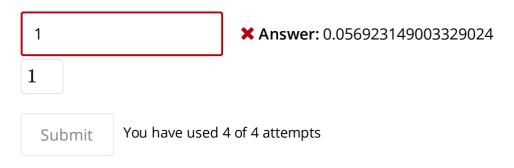
The standard deviation of the diameter of rivet heads manufactured by a factory is estimated to be 0.15mm. Given a sample with size 50 and sample mean 18.45mm, what is the upper limit of the confidence interval of the distribution mean with confidence level 98%?





• H_0 : The average height of male students in this college is **at least** 70 inches.



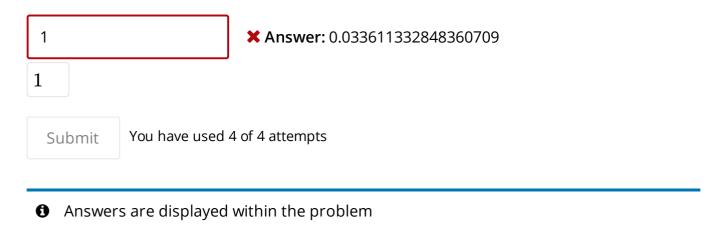


Answers are displayed within the problem

4

0/1 point (graded)

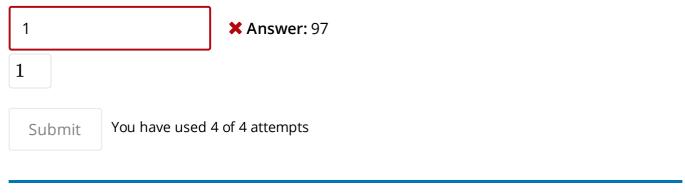
The null hypothesis says that a sprinter's reaction time follows a normal distribution with mean **at most** 0.150 seconds. Six measurements of a sprinter's reaction time show 0.152, 0.154, 0.166, 0.147, 0.161, and 0.159 seconds. What is the p value?



5

0/1 point (graded)

A psychologist estimates the standard deviation of a driver's reaction time to be 0.05 seconds. How large a sample of measurements must be taken to derive a confidence interval for the mean with margin of error at most 0.01 second, and confidence level 95%?



1 Answers are displayed within the problem