Problem Set Homework 4

JP

9/16/2021

# Standard Error of the Mean

# z-Score

# Answer The following questions

You are interested in studying all CPP students and the amount of alcohol they drink in one sitting. You find out that all CPP students, on average, drink 5.8 alcoholic drinks, with a standard deviation of 2.31. You decide to see if a sample of 100 students that you gathered are similar to all CPP students. You see that these 100 students have on average 4.7 alcoholic drinks per sitting. Is the sample’s alcohol drinking statistically different from all CPP students?

1. Create Null & Research Hypotheses
2. Calculate the standard error
3. Calculate the obtained z-score
4. Compare to z-score critical value
5. Make statement of statistical significance/nonsignificance

You are interested in studying all CPP students and the amount of snacks that students eat during class. You find out that all CPP students, on average, eat 1.4 snacks during class, with a standard deviation of .74. You decide to see if a sample of 200 students that you gathered are similar to all CPP students. You see that these 200 students have on average 3 snacks during class. Is the sample’s snacking during class statistically different from all CPP students?

1. Create Null & Research Hypotheses
2. Calculate the standard error
3. Calculate the obtained z-score
4. Compare to z-score critical value
5. Make statement of statistical significance/nonsignificance

You are interested in studying all CPP students and the amount of time it takes to find parking. You find out that all CPP students, on average, wait 62 minutes to park, with a standard deviation of 10.91. You decide to see if a sample of 50 students that you gathered are similar to all CPP students. You see that these 50 students wait 10 minutes less than all CPP students to find parking. Is the sample’s time to wait for parking statistically different from all CPP students?

1. Create Null & Research Hypotheses
2. Calculate the standard error
3. Calculate the obtained z-score
4. Compare to z-score critical value
5. Make statement of statistical significance/nonsignificance