

EPRS8530

t-tests

Exercise

1. The Atlanta Journal newspaper reported that Americans drank an average of 1.87 cups of coffee a day in the past year. A student in EPRS8530 then wonders if those graduate students who are taking EPRS8530 drink more or less. She collected data from her 24 classmates. The mean number of cups was 2.29, and the standard deviation was 2.56. Conduct a one sample t-test and state the conclusion. (Note: This was a real study.)

Step 1:

Step 2:

Step 3:

Step 4:

2. Give a 95% confidence interval for the number cups of coffee per day graduate students who are taking EPRS8530 drink.

3. The same student who conducted the previous study wondered if her classmates who were in

the health profession drank more or less than those who were in education. There were 9 people who were in the health profession (i.e., nurses) and 15 people who were in education. The mean for the health profession was 2.33, SD = 3.46; the mean for education was 2.27, SD = 1.98. Conduct an independent t-test, and state the conclusion.

(Note: The standard error of the difference between the two means is 1.10)

Step 1:

Step 2:

Step 3:

Step 4:

4. Give a 95% confidence interval for the difference between the two means.