Question 2

Students collected 8 random bags of a specific brand of potato chips and carefully weighed the contents of each bag, recording the following weights (in grams):

29.4 29.0 28.4 28.8 28.9 29.3 28.5 28.2

The students want to test the claim that the mean weight of these bags is 28.5 grams. They think it may be different.

(1/1 point)

2a. What is the appropriate null hypotheses for this test?

- H0: $\mu > 28.5$
- H0: $\mu = 28.5$ ✔
- H0: $\mu = 0$
- H0: $\mu = 28.5 - 0$

You have used 1 of 1 submissions

(1/1 point)

Lab due May 03, 2016 at 17:00 UTC

Problem Set
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2b. What are the sample mean and standard deviation? *(Round each to 2 decimal places.)*

Mean

28.81 ✔ **Answer:** 28.81

28.81

You have used 1 of 1 submissions

(1/1 point)

Standard Deviation *(Round to 2 decimal places.)*

0.43 ✔ **Answer:** .43

0.43

You have used 1 of 1 submissions

(1 point possible)

2c. What is the **test statistic** for this hypothesis test? This is the t-statistic for the sample mean. *(Round to 2 decimal places.)*

NOTE: Be sure to use the proper formula and your rounded answers to the previous questions to determine the statistic. If you use R or do not use the rounded values, your answer may be marked incorrect.

2.076137 ✖ **Answer:** 2.04

2.076137

You have used 1 of 1 submissions

(1/1 point)

2d. What is **t-critical** for this test, assuming an alpha level of 0.05? *(Round to 3 decimal places.)*

2.365 ✔ **Answer:** 2.365

2.365

You have used 1 of 1 submissions

(1/1 point)
2e. What was the outcome of your test?

- Confirm the null hypothesis $p > 0.05$
- Reject the null hypothesis $p < 0.05$
- Fail to reject the null hypothesis $p > 0.05$ ✔
- Fail to reject the null hypothesis $p < 0.05$

You have used 1 of 1 submissions

(1 point possible)
2f. In addition to random selection, what other condition of the data must be true for our t-test outcome to be reliable?

- The bags of potato chips must have an approximately Normal population distribution for weight.
- The bags of potato chips must have an approximately Normal sample distribution for weight.
- The bags of potato chips must come from the same manufacturer.
- Each bag must be related to every other bag in the sample.

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You have used 0 of 1 submissions

(1 point possible)
2g. Does your data provide sufficient evidence to suggest that the mean weight of these bags of potato chips is **not** 28.5 g per bag?

- Yes

No

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You have used 0 of 1 submissions