

Specifically, you must address the following rubric criteria, using the [Module Five Assignment Template](#).

- **Setup:** Define your population parameter, including hypothesis statements, and specify the appropriate test.
 - Define your population parameter.
 - Write the null and alternative hypotheses. Note: Remember, the salesperson believes that his sales are higher.
 - Specify the name of the test you will use.
 - Identify whether it is a left-tailed, right-tailed, or two-tailed test.
 - Identify your significance level.
- **Data Analysis Preparations:** Describe sample summary statistics, provide a histogram and summary, check assumptions, and find the test statistic and significance level.
 - Provide the descriptive statistics (sample size, mean, median, and standard deviation).
 - Provide a histogram of your sample.
 - Describe your sample by writing a sentence describing the shape, center, and spread of your sample.
 - Determine whether the conditions to perform your identified test have been met.
- **Calculations:** Calculate the p value, describe the p value and test statistic in regard to the normal curve graph, discuss how the p value relates to the significance level, and compare the p value to the significance level to reject or fail to reject the null hypothesis.
 - Determine the appropriate test statistic, then calculate the test statistic.

Note: This calculation is $(\text{mean} - \text{target})/\text{standard error}$. In this case, the mean is your regional mean (Pacific), and the target is 275.
 - Calculate the p value.

Note: For right-tailed, use the T.DIST.RT function in Excel, left-tailed is the T.DIST function, and two-tailed is the T.DIST.2T function. The degree of freedom is calculated by subtracting 1 from your sample size.

Choose your test from the following:

=T.DIST.RT([test statistic], [degree of freedom])

=T.DIST([test statistic], [degree of freedom], 1)

=T.DIST.2T([test statistic], [degree of freedom])
 - Using the normal curve graph as a reference, describe where the p value and test statistic would be placed.
- **Test Decision:** Discuss the relationship between the p value and the significance level, including a comparison between the two, and decide to reject or fail to reject the null hypothesis.
 - Discuss how the p value relates to the significance level.
 - Compare the p value and significance level, and make a decision to reject or fail to reject the null hypothesis.
- **Conclusion:** Discuss how your test relates to the hypothesis and discuss the statistical significance.
 - Explain in one paragraph how your test decision relates to your hypothesis and whether your conclusions are statistically significant.