For each of the two majors:

1. Create a scatter diagram of Y = ‘Annual % ROI’ against X = ‘Cost’. Include the trendline and the coefficient of determination right on the graph. See Week 1 hints for assistance.
2. Calculate the estimated ‘Annual % ROI’ when the ‘Cost’ (X) is $160,000. Show your work.
3. Conduct a full hypothesis test using the p value method:  You will be in charge. Set your own logical significance level. State it. Claim: There is a relationship between cost and Annual %ROI. The hypotheses are given but you must also state them. Make sure all the steps of hypothesis testing are present. Revisit Week 6 if you are unsure. I would suggest following the template in Week 6 Assignment, #2.
   * H0: β1 = 0
   * Ha: β1 ≠ 0

4. For this last activity in #3, you are going to use a word template that you could also use in your final paper to present all the hypothesis tests we did in Weeks 6 and 7. (I absolutely recommend this practice) Remember, this is a word template, so words, not symbols should be used. This is because the final product is a paper of interpretation, and β1 = 0 won’t mean a lot to the reader, but “the slope is zero so there is no relationship” will be much more readily understood.

Template: In Week \_\_\_\_\_, I ran a hypothesis test to determine if \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. My null hypothesis was \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. The results of the test indicated that I should \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the null hypothesis which means that \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Here are a few examples of how the template works: (These are fake examples – you need to use your real conclusions).

Example A: In Week 28, I ran a hypothesis test to determine if the cost of an accounting degree was 1 million dollars. My null hypothesis was that the cost of an accounting degree was 1 million dollars. The results of the test indicated that I should reject the null hypothesis which means that the cost of an accounting degree is not 1 million dollars.

Example B: In Week 88, I ran a hypothesis test to determine if the 30-year ROI of an accounting degree was 5 million dollars. My null hypothesis was that the 30-year ROI of an accounting degree was 5 million dollars. The results of the test indicated that I should fail to reject the null hypothesis which means that the 30-year ROI of an accounting degree is 5 million dollars.

Now, you try it for the hypothesis test you did in #3. Use the template to show what happened in this test.