Word has gotten out that your statistical consulting agency is the best in town! As a result, new contracts are pouring in and profits are soaring.  Today, a well-known psychologist – Ida Donsche of the Donsche Psychological Services firm, comes to you to get your statistical expertise. She has two problems she needs help with so you’ll be providing two different reports to her.

For her first problem, she is trying to determine if there is a relationship between depression and aging. She says it is well known and established in the literature that the general population averages µ = 40 on a standardized depression test (known as the SDT). To answer her question about the elderly, Ida obtains a sample of *n*=9 individuals who are each more than 70 years old. The depression scores for her sample are as follows:

1. 37
2. 50
3. 43
4. 41
5. 39
6. 45
7. 49
8. 44
9. 48

 Ida needs your help in answering the following important question on the basis of this sample, is depression for elderly people significantly different from depression in the general population? Use a two-tailed test with α = .05.

 Using your ‘writing up findings’ document as a guide, please provide a professional final report to your client. Please note that for this assignment, you’ll address all elements of that document (i.e., there are hypotheses involved).

 Remember that your client has no statistical background or knowledge. They just have a research question and they need you to answer it. You must provide the statistical information in your response that would satisfy other analysts, but you must also write it in such a way that your client can understand it based on your presentation. In other words, write your report in English (not numbers).

When responding to these questions, you should provide your client with the information presented above and it should be checked for clarity and be typo-free**.  You should also present a copy of your statistical output as well as your data file for the client’s use.**

II.  Ida’s second statistical question focuses a finding in the literature that suggests that when given humorous statements, respondents remembered those statements better than non-humorous ones. This findings has led to an increase in humor in teaching as a way to facilitate learning. Ida is not convinced this is the best way to approach teaching. Rather, she argues that the humorous sentences were not necessarily easier to remember, they people simply preferred those statements when they had a choice between the two types of sentences. To test this argument, Ida gathered two sets of data. She first used a group of respondents to whom she showed a set of exclusively humorous sentences. She then gathered another group of respondents to whom she showed a set of exclusively non-humorous sentences. Ida then recorded the number of each statement recalled in each group. The following data were gathered (each number represents the number of statements recalled):

**Humorous Statements                                  Non-humorous Statements**

4                                                                                      6

5                                                                                      3

2                                                                                      5

4                                                                                      3

6                                                                                      3

7                                                                                      4

6                                                                                      2

6                                                                                      6

2                                                                                      4

5                                                                                      3

4                                                                                      4

3                                                                                      4

3                                                                                      5

3                                                                                      2

5                                                                                      6

3                                                                                      4

Ida needs your statistical expertise to answer if these results indicate a significant difference in the recall of humorous versus non-humorous sentences? Use a two-tailed test with an α = .05. Tell your client about here sample. What are your findings? What are your policy recommendations for teachers – should they focus on including humor in their lectures to facilitate learning? Or does it appear not to matter? Don’t forget to include all elements of a well-written final report.