Answer Sheet for Assignment 8: Clustering Using R

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*Fill in the answer sheet below based on the output from R/RStudio:*

In addition to this answer sheet, make sure to submit the four supporting files. See assignment instructions.

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|  | **Question** | **Answer** |
| **5 clusters**  Based on your script output with 5 clusters, answer Questions 1-7 below. | | |
| 1 | Which cluster is the largest (write the number of the cluster)?  How many stores are in the largest cluster (i.e. what is the cluster size)? |  |
| 2 | Describe the average sales of cluster 1 for each type of jeans (compared to the overall population average across all stores)? (write one or two sentences) |  |
| 3 | In which of the 5 clusters of stores do fashion jeans sell the best, on average? |  |
| 4 | What is the range of withinss errors (i.e. within-cluster SSE) for the 5 clusters? | Lowest: \_\_\_\_\_\_\_\_\_\_  Highest: \_\_\_\_\_\_\_\_\_\_ |
| 5 | What is the *average* betweenss error (i.e. average between-cluster SSE) for all 5 clusters? |  |
| **15 clusters**  Now rerun the script, this time with 15 clusters. Then answer the following questions: | | |
| 6 | Describe the average sales of cluster 1 for each type of jeans (compared to the overall average across all stores)? (write one or two sentences) |  |
| 7 | In which of the 15 clusters of stores do fashion jeans sell the best, on average? |  |
| 8 | What is the range of withinss errors for the 15 clusters? | Lowest: \_\_\_\_\_\_\_\_\_\_  Highest: \_\_\_\_\_\_\_\_\_\_ |
| 9 | What is the *average* betweenss error for all 15 clusters? |  |
| **5 Clusters versus 15 Clusters** | | |
| 10 | Which scenario (5 clusters or 15 clusters) produces clusters with better cohesion? |  |
| 11 | Which scenario (5 clusters or 15 clusters) produces clusters with better separation? |  |