Homework assignment 10

Use black text (if possible) for everything you include in this document. Keep both your answers and the original questions. Save this document in PDF format and submit it on Canvas. Include your last name, the course number and the module number in the name of your file.

1. Show a documentation header.

2. Purchase a 1.69 ounce bag of plain M&Ms. Count the colors in your bag. Input the data into SPSS. Weight the cases appropriately. Since the data is fewer than 10 rows, display all of the data here.

3. Draw a chart that illustrates the percentages for each color. This could be a bar chart, pie chart, or line graph. Provide a brief qualitative interpretation of this chart.

4. Test the hypothesis that all the colors are equally likely using a chi-square goodness of fit test. Show the output from SPSS and interpret your results.

5. I purchased a 1.74 ounce bag of peanut M&Ms and counted the number of different colors. I stored the results in data-10-peanut.csv. Download the data and combine it with your data. Test the hypothesis that the color proportions are independent of type of M&M. Present the SPSS output and interpret your findings.

6. Did either of the two tests you ran above produce any warning messages? If so, please explain why you received the warning message.

7. Download the file data-10-gardasil.csv (or data-10-gardasil.tsv or data-10-gardasil.xls) and import it into SPSS. Add variable labels and value labels. Display the first ten rows of data.

8. Draw a bar chart displaying the percentage of patients in each clinic who did or did not complete all the shots. Be sure to select the Scale to 100% option within the Options menu of the chart editor. Provide a brief qualitative interpretation of this plot.

9. Calculate a chi-square test of independence between clinic and completion of shots. Present the output and interpret the results.

10. Display the standardized residuals from the test mentioned above. Display them and provide an interpretation.

11. Estimate the odds ratio of completion of shorts versus age group. Display the odds ratio and its confidence interval. Interpret this confidence interval.