MTH 154, Quiz #3, Spring 2023   Name _____

Instructions: You must show all work to receive full credit for the problems below. You may use Excel where appropriate. Any datasets needed will be posted on Canvas with the quiz file, and you should submit such work along with your quiz. Round answers to two decimal places unless other instructions are given in the problem. Do not say "see Excel". Paste your answers into the quiz.

1. In the file **154quiz3data.xlsx**, on Sheet 1, use the data on region to create a summary table of counts, and from that, make a pie chart of the data. Which region is most represented? Which one is least represented?

2. Sort the data on Sheet 2, then use the sorted data to find the 90th percentile of the data set. What is that value?

3. Using the data on Sheet 3, make a line graph with the years on the horizontal axis and the percent housing values on the vertical axis. Your line graph should display the data for both Maryland and Virginia. Be sure to include proper axis labels and a title. Write a sentence or two summarizing the graph.

4. On Sheet 4 is data on buy category and time of day. Create a pivot table, and then create two different bar graphs: a) a cluster column graph, b) a stacked column graph of the table. Be sure to label it appropriately with a descriptive title. Write a one or two sentence summary of what each graph means. Explain how the graphs tell a slightly different story than the other one.