

## STAT 269 - Introductory Statistics

### Minitab Homework 2 (Unit 1 Part 3)

- Once you have formed your group, or decided to keep your previous group, send Dr. Wilcock an email or Canvas message to confirm your group members **either way!** Now you are ready to start the assignment. **Do not start the assignment until you have completed this step!**
- Open Minitab.
- Either open your Minitab Homework 1, or reenter the data from class in C1 of the worksheet. Be sure to give the column an appropriate title if you are reentering the data or forgot to do so on Homework 1.
- Click “Graph” and select “Stem-and-Leaf”. In the dialog box enter C1 in the “Graph Variables” box. Click Ok.
- Note that this is a text plot, which prints in the Session Window. Note that there is no vertical line. Also, there seems to be an extra column of values. Hover over the box with the Stem and Leaf plot, and click on the “Menu” option. Click “Add Note” and then use this space to add a comment about whether you can figure out what Minitab is trying to express. For full credit make a reasonable guess/statement about what Minitab is doing. If you do not have any idea what Minitab is trying to show you, comment that you cannot guess for partial credit.
- Click “Graph” and select “Histogram”. Make sure “Simple” is highlighted, then press OK. In the “Graph Variables” box, enter C1. Click “Labels...” . Give your graph an appropriate title reflecting the nature of the data. Enter your name(s) as “Subtitle 1”, and comment on the units of the data as “Footnote 1”. Click OK, then OK again.
- Note this opens a new window with the histogram in it. Do not close this, as you will want this in the file when you save it to turn in.
- In the Session Window, hover over the Histogram box and click on the “Menu” option. Click “Add Note” and then use this space to add a comment on how this differs from our histogram from class.
- Click “Graph” again, and select “Boxplot”. Click OK once “Simple” is selected, but note that Minitab shows the boxplot vertically instead of horizontally. We will need to fix this later. Once again, enter C1 in “Graph Variables” and fix the “Labels...” options. Before the final OK, we need to fix the direction. Click on “Scale”. In the “Axes and Ticks” tab, check the box next to “Transpose value and category scales”. This will give us a horizontal graph now. Now click OK twice.
- Once you have this plot, let’s manipulate the default appearance. Right click on the background, away from any text. Select “Edit Figure Region”. Under “Fill Pattern”, select “Custom” and change the type to the box with “N” in it (you may need to scroll up to see this option). This will remove the fill. Click OK.
- Now, double click on your title. Change the font, and click to underline the text. Click OK.
- Right click or double click on the iqr box, change the fill pattern to “Custom”, then change the “Background color” from Automatic to some color of your choice. Click OK.
- Select the outlier, and change the symbol (select “Custom” to do this) to a closed circle. You can adjust the size if you would like, but this is not necessary (don’t make the plot less useful by making the dot so small that it disappears or so big that it overwhelms the plot). Click OK to see your adjusted plot.

- Now, select “Edit” from the main menus in Minitab, and choose “Copy Graph”. Open Word and paste the graph of the boxplot into a new document. Save this Word file as “Minitab2Boxplot”. This will automatically give a file with a .doc or .docx extension.
- Save the Minitab project as “Minitab2”. This will automatically save with a .MPJ extension.
- In Canvas, go to the Minitab 2 assignment and click to submit the assignment and upload the two files that you just saved. You **must** upload **both** files for full credit.