

Homework 1

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Due Jan 18 by 11:59pm **Points** 4 **Submitting** a file upload
File Types doc, docx, txt, and pdf **Available** until Jan 25 at 11:59pm



Assignment Overview

The purpose of this assignment is to help you practice skills that are essential to your success in this course and within exploratory data analysis and visualization. For this assignment:

- Download the "bears.csv" dataset. This file contains random sample data from 54 California black bears. In the file, you will see the variables:
 - age: bear's age in months
 - datamonth: the month that the data was taken
 - gender: bear's gender
 - headlength: head length in inches
 - headwidth: head width in inches
 - neckcircum: neck circumference in inches
 - length: head to tail in inches
 - chest: chest width in inches
 - weight: weight in pounds
1. Create a strip chart for each possible numeric variable (there should be 7). Use jitter. Include the R code above each graph in a Word Document.
 2. In the same Word Document, create a sorted dot chart of the following (3 graphs) using gender as the row label. Include the R code above each graph:
 - A. the length
 - B. the chest
 - C. the weight
 3. In the same Word Document, create box plots for each of the 7 numeric variables separated by gender. There should be 7 pairs of side-by-side boxplots giving you 14 in total. Include the R code above each graph. Below each graph, thoroughly explain in complete sentences what you

observe in each of the box plots. Use `summary()` to help obtain precise numbers.

Guidelines

1. Click **Start Assignment** to the upper right.
2. Upload your file (must be a .doc, .docx, .txt, or .pdf file type).
3. Click **Submit Assignment** to submit your work.

The Canvas Student Guide provides [instructions for submitting an online Assignment](https://community.canvaslms.com/videos/1121-assignments-submissions-students). 
(<https://community.canvaslms.com/videos/1121-assignments-submissions-students>)

Grading Criteria

Use the rubric below as a checklist to ensure that you have successfully completed the assignment.

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Criteria	Ratings		Pts
Strip Chart	1 pts Full Marks Graph is correct and all required elements present	0 pts No Marks	1 pts
Dot Plot	1 pts Full Marks Graph is correct and all required elements present	0 pts No Marks	1 pts
Box Plot	1 pts Full Marks Graph is correct and all required elements present	0 pts No Marks	1 pts
Readability	1 pts Full Marks Assignment has a proper header and numbering. Code and graphs are clean and clear. The submission is easy to read and follow.	0 pts No Marks	1 pts
Total Points: 4			