
Name:

THE UNIVERSITY OF TEXAS AT AUSTIN

Homework Assignment # 2

Exploratory data analysis.

These are further instructions on what your solutions to homework assignment #2 need to include. Before you start solving the problems, please download the required data sets for problems **1.156** and **1.162** from *Canvas*. They are available in the folder titled **Data sets**.

Problem 1.94. Provide an **algebraic** argument to prove the statement in the problem.

Problem 1.156. Please, use R to solve this problem. For both car types, you need to provide the following:

- a histogram,
 - the mean,
 - the median,
 - the empirical standard deviation,
 - the inter-quartile range (as interval).
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Problem 1.162. Please, use R to solve this problem. For both years, you need to provide the following:

- a histogram,
- the mean,
- the median,
- the empirical standard deviation,
- the inter-quartile range (as interval).

Then, provide a **scatterplot** of the country-specific values.

Problem 1.176.

- a. Specify the coefficients a and b .
 - b. Specify the coefficients a and b .
 - c. Use your answers to parts **a.** and **b.** to calculate the both of the scores in *standard units*.
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