

Activity 4

STAT 310, Spring 2023

Exercise 1. Josh, a student in a statistics class, scored 85 points on the first exam and 80 points on the second exam. The mean score on the first exam for all students in this course was 79 with a standard deviation of 4. The mean score on the second exam was 60 with a standard deviation of 10. The distributions of both exam scores are approximately normal.

- (a) What is Josh's z -score on the first exam?
- (b) What is Josh's z -score on the second exam?
- (c) On which exam did Josh do better when compared with other students in the class?

Exercise 2. The following box plot shows the distribution of the number of hours spent working each week for a random sample of American adults. Using the box plot, estimate the median and IQR. Are there any potential outliers in this data set?

