

PSYC 2317: Statistical Methods for Psychology

Tarleton State University

Homework 1

Fall 2019

1. Find the mean and median for the following scores:

2 5 15 3 9

2. Find the mean and median for the following scores:

5 4 5 2 7 1 3 5

3. The following exercises will give you practice with statistical notation:

- (a) A set of $N = 15$ scores has $\sum X_i = 120$. What is \bar{X} ?
 - (b) A set of $N = 8$ scores has a mean of $\bar{X} = 12$. What is the value of $\sum X_i$ for this sample?
 - (c) A set of scores has a mean of $\bar{X} = 8$ and $\sum X_i = 40$. How many scores are in the set?
4. A set of $N = 7$ scores has a mean of $\bar{X} = 16$. One score in the set is changed from $X = 6$ to $X = 20$. What is the value for the new mean after this adjustment?
5. (JASP exercise) For this exercise, you'll need to download the "ADD.csv" file from Canvas. We'll be interested in two variables: `ADDSC`, which is the average of three ADD-like behavior scores obtained in elementary school, and `Gender`, which can be either male or female.
- (a) Compute the mean and median of `ADDSC`
 - (b) Compute the mean of `ADDSC` split by `Gender`. Which gender appears to have the larger `ADDSC` score?
 - (c) Repeat part (b) using the median. What differences do you notice compared to part (b)? Why might this be the case?