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 $\overline{X}$?

   (b) A set of $N = 8$ scores has a mean of $\overline{X} = 12$. What is the value of $\sum X_i$ for this sample?

   (c) A set of scores has a mean of $\overline{X} = 8$ and $\sum X_i = 40$. How many scores are in the set?

4. A set of $N = 7$ scores has a mean of $\overline{X} = 16$. 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 (c) using the median. What differences do you notice compared to part (b)? Why might this be the case?