

Summer Assignment

Use your textbook or a credible online resource to define each of the following terms.

1) Mean -

2) Standard Deviation -

3) Variance -

4) Median -

5) Interquartile Range (IQR) -

6) Five-Number Summary -

7) Outlier -

8) Symmetric -

9) Skewed to the Right -

10) Skewed to the Left -

11) Z-Score -

12) Normal Distribution -

13) Probability -

Calculate each of the following. Show all of your work.

14) Here are the scores earned by Dr. Anderson's students on the first Statistics Test: 85, 76, 90, 67, 84, 100, 86, 74, 43, 92, 82, 78, 88

Calculate the Mean, Standard Deviation, Variance, Median, Interquartile Range, and Five Number Summary for this set of data. Are there any Outliers?

- 15) Describe the Shape, Center, and Spread of the distribution of test scores from problem #14. Is there anything unusual about the distribution?
- 16) Olivia earned a 92 on Dr. Anderson's test. Calculate and interpret her z-score in the context of this problem.
- 17) Suppose we roll 2 fair dice. What is the probability that the sum of the two dice is 6 or 9?
- 18) Suppose we flip 5 fair coins. What is the probability of at least one tail?
- 19) Suppose we flip 5 fair coins. What is the probability of exactly 4 heads?
- 20) Abby, Bobby, Carlos, Dean, and Emily go to the bagel shop for lunch every Thursday. Each time, they randomly pick two of the group to pay for lunch by drawing names from a hat. Find the probability that Carlos or Emily (or both) ends up paying for lunch.