

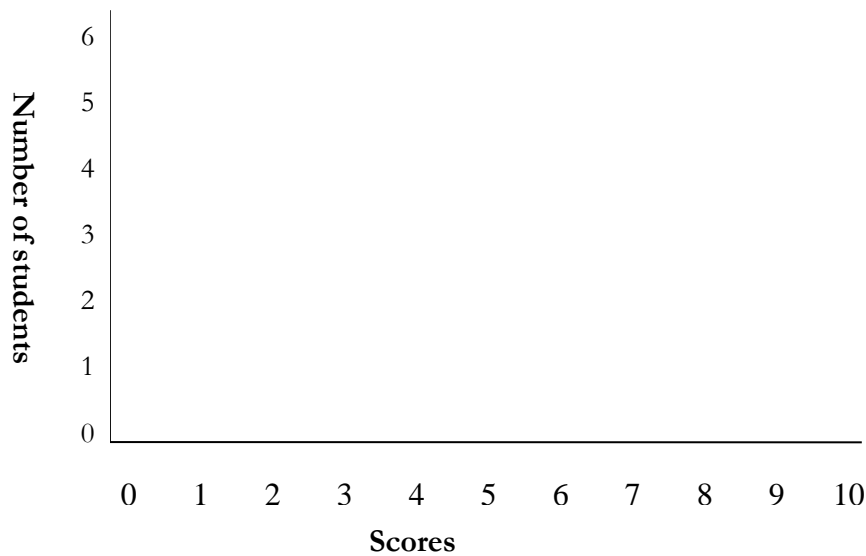
Descriptive Statistics

The numbers below represent the scores of a group of students on a spelling quiz. Use them in performing the required calculations.

3, 8, 7, 8, 4, 3, 8, 7, 4, 9, 7, 5, 5, 7, 4, 7, 9, 7, 3, 5

Distribution of Scores

- Sort the scores, that is, arrange them in order from lowest to highest.
- Create a frequency distribution and display this as a histogram.



- Calculate the following statistics for the scores given.

Mode:

Mean:

Median:

Range:

- Dr. Sayer is studying how our perceptions of attractiveness have changed over time. He hypothesized that, due to increased concerns over skin cancer, tan skin is perceived as less attractive now than it was 20 years ago. He compared data from 1987 to current data and found that, on average, tan skin was rated as 4.2 in attractiveness (on a scale of 1-5, with 5 being most attractive) in 1987 as compared to 3.7 today. In analyzing these results, what three factors must Dr. Sayer consider when determining if these averages are reliable?

- _____
- _____
- _____

- If it turns out the Dr. Sayer’s averages are very reliable, he may conclude that his hypothesis is correct. In order to communicate that that the difference between the 1987 and 2007 data is not likely due to chance, he would say that the results are _____.