

Pledge:

9/12/04  
Dr. Lunsford

MATH 271  
Applied Stats

Name: \_\_\_\_\_  
(20 points possible)

The following are the quiz scores (max possible is 20) of 20 randomly selected students from an Introduction to Statistics class:

10 11 13 14 15 15 15 15 16 16 16 16 16 17 17 18 18 18 19 19

(a) Find the median, mode, and mean of this sample data. Clearly indicate your answers. (2 points)

(b) Find the sample standard deviation of this sample data. Please show how you would plug the data into the appropriate formula to compute this value. (3 points)

(c) Create a frequency distribution and graph the corresponding histogram for the data by using a class width of 2 and the minimum value of the data as the lower class limit for the first class. Please show your frequency table as well as the graph of the histogram. Also please be sure to label the axes of your histogram. (5 points)

(d) Please classify the “shape” of the data and justify your classification based on your answers above. (2 points)

Given the vectors  $X = \begin{bmatrix} 1 \\ 2 \\ -3 \\ 4 \end{bmatrix}$  and  $Y = \begin{bmatrix} 10 \\ -9 \\ -8 \\ 7 \end{bmatrix}$  find the following: (2 points each – 4 points total)

(a)  $XY + U(4)$

(b)  $-3X + Y$

Pledge:

Give an example of each of the following: (1 point each – 4 points total)

A descriptive statistic

An inferential statistic

Continuous data

Qualitative data