

Pledge:

9/11/2006
Dr. Lunsford

MATH 171
Quiz 3

Name: _____
20 Points Possible

Below are the scores on a basic mathematics skills quiz given to thirty five students in Class A. The maximum possible score was a 20. For your convenience the scores are given in ascending order.

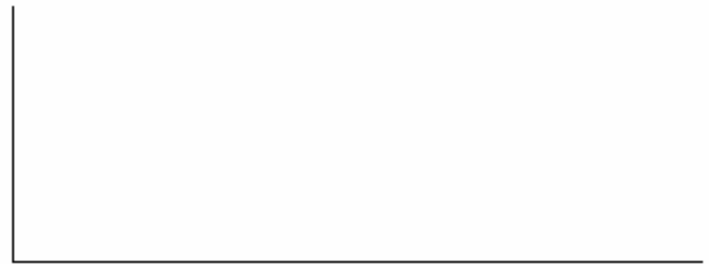
8, 10, 10, 11, 12, 12, 12, 12, 13, 13, 13, 13, 14, 14, 14, 14, 14, 14,
15, 15, 15, 15, 15, 15, 15, 15, 16, 16, 16, 16, 17, 17, 17, 18, 18

(a) Below is a frequency table for the data using 7 classes. I have given you the class boundaries using the convention we discussed in class. Note that the variable X is quiz score. Please use the data above to complete the table. (4 points)

Class Limits For X	Frequency (Count)	Percent Frequency (to two decimal places)
$6 \leq X < 8$		
$8 \leq X < 10$		
$10 \leq X < 12$		
$12 \leq X < 14$		
$14 \leq X < 16$		
$16 \leq X < 18$		
$18 \leq X < 20$		

(b) Use the table in Part (a) to graph a *percent* frequency histogram (i.e. graph the percent frequency on the vertical axis) on the axes provided below. Be sure to label your axes! (4 points)

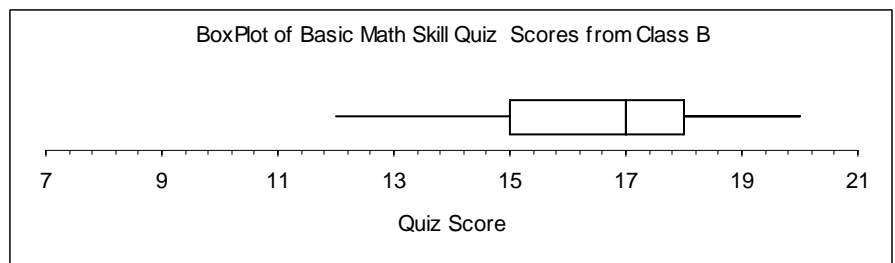
(c) If Dr. L. grades on a 10 point scale then 70% or higher on a quiz is considered a grade of C or better. What percent of the students in the class have a grade of C or better? (2 points)



(d) On the histogram you generated above, shade the area that corresponds to the answer in part (c). (1 points)

(e) Find the five number summary for this data. You should be able to do this without having to enter all of the data points into your calculator. Clearly indicate your answers. (4 points)

(f) To your right is a box plot of the basic skill quiz scores from another class (Class B). Please draw the box plot for Class A on the same axes (above the plot for Class B). (3 points)



Pledge:

(g) For each statement below, please write “True” or “False” (according to which is correct) in the blank provided next to the statement. (2 points, ½ point each)

_____ The shape of the distribution of quiz scores for Class A is essentially unimodal with a very slight negative (left) skew.

_____ The median quiz score for Class A is larger than the median quiz score for Class B.

_____ The quiz scores for Classes A and B appear to have the same IQR (Interquartile Range).

_____ The quiz scores for Class A have a larger range than the quiz scores for Class B.