2023GFA_ANA_500_02 Foundations of Data Analytics

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Review Test Submission: Module 01 Week 1 Paper and Pencil Assignment

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Course	2023GFA_ANA_500_02 Foundations of Data Analytics
Test	Module 01 Week 1 Paper and Pencil Assignment
Started	8/29/23 3:47 PM
Submitted	9/1/23 3:49 PM
Status	Completed
Attempt Score	69.15 out of 100 points
Time Elapsed	72 hours, 1 minute
Instructions	This assignment contains a variety of types of questions such as multiple choice, fill in the blank and true/false. You might want to go through and answer all the questions on paper first using the Word doc provided, then open and enter your answers to the online questions. You will have two tries to answer the questions for this assignment.

Question 1 5 out of 5 points

Descriptive statistics provides _____ information about something, e.g. the mean (or average) height of men. Acceptable answers include (without the quotation marks), "specific", "overall", "summarized", or "useful". Select the answer you believe best fits and enter that answer in all lower-case letters.

Question 2 5 out of 5 points

Inferential statistics provides insight into a _____ of data. Acceptable answers could include "sample", "population", "large group", or "small group". Enter the answer you believe best fits using all lower case letters.

Question 3 5 out of 5 points

A random sample is all that is needed in order to make a valid statistical inference.

Question 4 1.65 out of 5 points

Sampling is complex and providing an adequate random sample to make a valid statistical inference includes many things, for example _____ sampling. Select the answers below that correctly fill in the blank in the prior sentence.

Question 5 0 out of 5 points

Suppose you have a dataset with information on public high schools in Maryland. For each variable listed, determine if the variable is numerical or categorical. If it is numerical determine if it is discrete or continuous. If it is categorical determine if it is nominal or ordinal.

Variable 1 is "Number of Students".

Question 6 0 out of 5 points

Suppose you have a dataset with information on public high schools in Maryland. For each variable listed, determine if the variable is numerical or categorical. If it is numerical determine if it is discrete or continuous. If it is categorical determine if it is nominal or ordinal.

Variable 2 is "Average teacher salary".

Question 7 5 out of 5 points

Suppose you have a dataset with information on public high schools in Maryland. For each variable listed, determine if the variable is numerical or categorical. If it is numerical determine if it is discrete or continuous. If it is categorical determine if it is nominal or ordinal.

Variable 3 is "the race/ethnicity of the principal".

Question 8 5 out of 5 points

Suppose you have a dataset with information on public high schools in Maryland. For each variable listed, determine if the variable is numerical or categorical. If it is numerical determine if it is discrete or continuous. If it is categorical determine if it is nominal or ordinal.

Variable 4 is "the student to teacher ratio".

Question 9 5 out of 5 points

Suppose you have a dataset with information on public high schools in Maryland. For each variable listed, determine if the variable is numerical or categorical. If it is numerical determine if it is discrete or continuous. If it is categorical determine if it is nominal or ordinal.

Variable 5 is "a variable setup to rank schools as 'above satisfactory,' 'satisfactory,' or 'below satisfactory'.

Question 10 5 out of 5 points

Consider the imaginary dataset below. Calculate the mean number of students given this dataset. Enter your answer rounded to a whole number.

School	Number of Students

A	900
B	1200
C	340
D	870
E	990
F	1200

Question 11 0 out of 5 points

Consider the imaginary dataset below. Calculate the standard deviation for the number of students given this dataset. Enter your answer rounded to one decimal place.

School	Number of Students
A	900
B	1200
C	340
D	870
E	990
F	1200

Question 12 5 out of 5 points

Consider the imaginary dataset below. Calculate the median number of students given this dataset. Enter your answer rounded to a whole number.

School	Number of Students
A	900
B	1200
C	340
D	870
E	990
F	1200

Question 13 5 out of 5 points

Consider the imaginary dataset below. Calculate the mode of the number of students given this dataset. Enter your answer rounded to a whole number.

School	Number of Students
A	900
B	1200
C	340
D	870
E	990
F	1200

Question 14 5 out of 5 points

Consider the imaginary dataset below. Calculate the proportion of schools with less than 1000 students given this dataset. Enter your answer rounded to three decimal places.

School	Number of Students
A	900
B	1200
C	340
D	870
E	990
F	1200

Question 15 0 out of 5 points

Based on your calculations about the imaginary dataset, is the distribution of the number of students skewed? If yes, the skew is in the _____ direction.

Question 16 2.5 out of 5 points

Measures you can use to determine whether or not a distribution is skewed include _____. For example, consider the relationship of the mean, median and mode in terms of where they appear in a distribution.

Question 17

0 out of 5 points

Using the imaginary dataset below, compute the standardized value for School A and enter that value rounded to three decimal places.

School	Number of Students
A	900
B	1200
C	340
D	870
E	990
F	1200

Question 18

5 out of 5 points

The standardized value for School A is very small meaning that it is very close to the mean value for the number of students in all schools.

Question 19

5 out of 5 points

Using the imaginary dataset again but this time to generate a histogram, the number of schools in the bin represented by values from 500 to 1000 is _____ .

Question 20

5 out of 5 points

Using the imaginary dataset one more time but this time with the schools split into two groups, generate boxplots representing Group 1 and Group 2. The average number of students in Group 2 rounded to a whole number is _____ .

School	Group	Number of Students
A	1	900
B	2	1200
C	1	340
D	2	870
E	1	990
F	2	1200

Friday, September 1, 2023 3:49:35 PM EDT

← OK