Name_____ Hour 5 7 Basic Statistics Assignment DUE 8-22-16

Review Goal: Students will be able to use last last's vocabulary terms to classify and distinguish data types and measurements

Review Goal: Students will be able to determine three different measures of central tendency from a given list.

New Goal: Students will use the definitions of central tendency to answer questions about data within a list.

New Goal: Students will be able to state whether data is Positively Skewed, Negatively Skewed or Symmetric

Directions: Use statement 1 and statement 2 to the answer questions 1-4 about types of data and types of data measurements.

Statement 1: Juanita describes her dad as taller than her brother, but he is shorter than her uncle.

Statement 2: Bill gives his height as 6'5 ½" and his wife's height as 5'8"

1. Statement 1 uses _____data to describe height. (Qualitative or Quantitative)

2. Statement 2 uses _____data to describe height. (Qualitative or Quantitative)

3. Statement 1 uses _____data measurement to describe height.
   (Nominal , Ordinal, Interval, Ratio)

4. Statement 2 uses _____data measurement to describe height.
   (Nominal , Ordinal, Interval, Ratio)

Directions: Use the following passage to answer questions 5-8

Mr. Hickman gives a survey to all of his current students about their past experiences in mathematics. He then randomly selects 40 of these surveys and finds that 25% of the surveys have students recording that they have struggled in mathematics in the past.

5. State the population _____

6. State the parameter _____

7. State the sample _____

8. State the statistic _____

Directions: Determine the specific type of data or data measurement present in each statement

9. The number of times you have replaced your tires on the car you drive (discrete or continuous)

10. The air pressure that you inflate your tires to (discrete or continuous)

11. The color of your car (Nominal, Ordinal, Interval, Ratio)

Directions: Use the following data sets to answer the following questions #12-23

Data Set 1: {2,4,4,9,12,13} Data Set 2 {3,3,3,4,5,7,8} Data Set 3 {8,8,8,9,9,9,10,10,10,15}

Data Set 4 {4,4,4,5,6,7,8,8,9,9,10,10,11,11,12} Data Set 5 {2,5,7,9,12,13,18,19,29,72,100} Data List 6 (1,2,2,3,3,3,4,4,5)

12. Determine each of the following for data list 1 Mode _____ Median _____ Mean _____

13. Determine each of the following for data list 2 Mode _____ Median _____ Mean _____

14. Determine each of the following for data list 3 Mode _____ Median _____ Mean _____

15. Determine each of the following for data list 4 Mode _____ Median _____ Mean _____

16. Determine each of the following for data list 5 Mode _____ Median _____ Mean _____

17. Determine each of the following for data list 6 Mode _____ Median _____ Mean _____

SKEWNESS AND SYMMETRY

- A data set is said to be positively skewed IF the mean is greater than the median
- A data set is said to be negatively skewed IF the mean is less than the median
- A data set is said to be symmetric IF mean, mode, and median are equal. (typically the data set will have exactly one mode)

18. Which data lists are positively skewed?_____

19. Which data lists are negatively skewed?_____

20. Which data lists are symmetric?_____

21. Which data lists had a median that was one of the numbers in the list? _____

22. Which data lists had no mode?_____

23. Which data lists had multiple modes?_____

Directions: Use the following numbers in data list 7 {1,2,4,5,6,7,7,8,9,10} to answer the questions 24 and 25

24. What number can you add to the data list 7 to get a mean of 6?

25. Assuming that you start with the original data list 7, what number can you add to the list to get a median of 6?

Exit Survey for 8-22-16