

Name: _____
Algebra 1

Date: _____
Band: _____

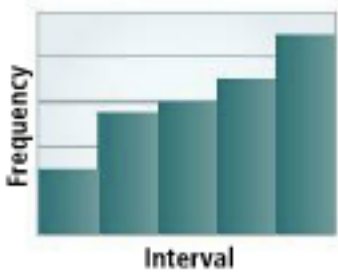
Data Analysis Test

Instructions: Read all directions. Show all work. [total = 39]

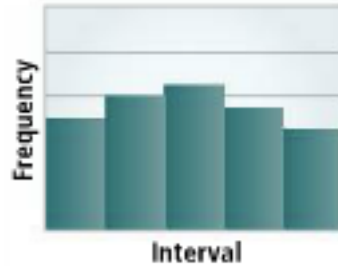
LT#1: Make and interpret frequency tables and histograms.

Tell whether the histogram is *uniform*, *symmetric*, or *skewed*. [1 pt each]

1.

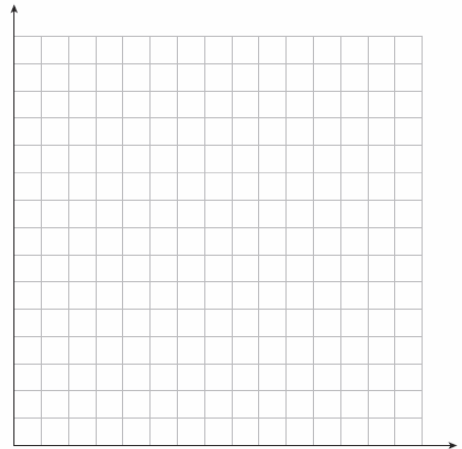


2.



3. The 400-m race times (in seconds) for a track team are listed below. Make a frequency table and a histogram that represent their times. [8 pts]

58, 54, 63, 56, 60, 58, 72, 61, 60, 59, 57, 52, 66, 68



LT#2: Find mean, median, mode, and range.

4. The hours a gardener worked over the past 14 weeks are listed below. What are the mean, median, mode, and range of the hours the gardener worked? Which measure of central tendency best describes the data? [5 pts]

39, 52, 41, 44, 47, 36, 51, 44, 50, 40, 53, 46, 44, 35

5. The weights of 8 scuba divers, without tanks, are 85, 103, 94, 97, 88, 91, 104, and 95 kg. A tank weighs 15 kg. What are the mean, median, mode, and range of the divers' weights with tanks? [5 pts]

LT#3: Make and interpret box-and-whisker plots.

LT#4: Find quartiles and percentiles.

Identify the minimum, first quartile, median, third quartile, and maximum of each data set. Then make a box-and-whisker plot of each data set. [5 pts each]

6. test scores: 87, 52, 91, 66, 79, 56, 73, 90, 78, 51, 83



7. Speeds (mi/h): 41, 19, 31, 13, 48, 22, 61, 30, 34, 37



8. Out of 10 dogs, 4 weigh no more than 12.5 kg. What is the percentile rank of the weight 12.5 kg? [2 pts]

9. How do you calculate interquartile range? How is this measure useful? [2 pts]

LT#5: Classify data and analyze samples and surveys.

10. A teacher asks a student chosen at random from each table in the cafeteria for his or her opinion of school food. Will this survey method give a good sample? Explain. [2 pts]

11. Give examples of univariate and bivariate data. How do these types of data differ? [3 pts]