

Review 1

Frequency Distributions, Histograms, Stem and Leaf Plots. Measures of center, measures of variation.
 MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Determine whether the given value is a statistic or a parameter.

- 1) A health and fitness club surveys 40 randomly selected members and found that the average weight of those questioned is 157 lb. 1) _____
 A) Statistic B) Parameter

Determine whether the given value is from a discrete or continuous data set.

- 2) The temperature of a cup of coffee is 67.3°F. 2) _____
 A) Discrete B) Continuous
- 3) The number of limbs on a 2-year-old oak tree is 21. 3) _____
 A) Discrete B) Continuous

Determine which of the four levels of measurement (nominal, ordinal, interval, ratio) is most appropriate.

- 4) The temperatures of eight different plastic spheres. 4) _____
 A) Nominal B) Interval C) Ordinal D) Ratio
- 5) The sample of spheres categorized from softest to hardest. 5) _____
 A) Interval B) Nominal C) Ratio D) Ordinal
- 6) Salaries of college professors. 6) _____
 A) Ordinal B) Interval C) Nominal D) Ratio
- 7) Nationalities of survey respondents. 7) _____
 A) Ratio B) Interval C) Nominal D) Ordinal

Provide an appropriate response.

- 8) The following frequency distribution analyzes the scores on a math test. Find the class boundaries of scores interval 95-99.

In addition, for the first class, find the class width, the class limits and the midpoint.

Scores	Number of students
40-59	2
60-75	4
76-82	6
83-94	15
95-99	5

- 9) The frequency distribution for the weekly incomes of students with part-time jobs is given below. Construct the corresponding relative frequency distribution. Round relative frequencies to the nearest hundredth of a percent if necessary.

Income (\$)	Frequency
200-300	61
301-400	51
401-500	87
501-600	88
More than 600	20

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Find the mean for the given sample data. Unless indicated otherwise, round your answer to one more decimal place than is present in the original data values.

- 10) Andrew asked seven of his friends how many cousins they had. The results are listed below. Find the mean number of cousins. 10) _____
 16 11 4 9 5 2 8
 A) 9.2 cousins B) 9.4 cousins C) 7.4 cousins D) 7.9 cousins

Find the median for the given sample data.

- 11) The temperatures (in degrees Fahrenheit) in 7 different cities on New Year's Day are listed below. Find the median temperature. 11) _____
 17 22 39 58 67 69 85
 A) 39°F B) 58°F C) 51°F D) 67°F

Find the mode(s) for the given sample data.

- 12) 20 36 46 36 49 36 49 12) _____
 A) 46 B) 49 C) 38.9 D) 36

Find the midrange for the given sample data.

- 13) 49 52 52 52 74 67 55 55 13) _____
 A) 61.5 B) 12.5 C) 25 D) 53.5

Find the mean of the data summarized in the given frequency distribution.

- 14) The test scores of 40 students are summarized in the frequency distribution below. Find the mean score. 14) _____

Score	Students
50-59	6
60-69	5
70-79	6
80-89	11
90-99	12

- A) 71.1 B) 75.1 C) 74.5 D) 79.0

Find the range for the given sample data.

- 15) The prices (in dollars) of 12 electric smoothtop ranges are listed below. 15) _____
 825 930 615 525 1425 1030
 630 725 740 1230 515 1025
 A) \$920 B) \$910 C) \$905 D) \$915

Find the standard deviation for the given sample data. Round your answer to one more decimal place than is present in the original data.

16) 18 18 14 11 8 8 10 17 12

A) 1.6

B) 4.0

C) 3.8

D) 4.3

16) _____

Find the standard deviation of the data summarized in the given frequency distribution.

17) The test scores of 40 students are summarized in the frequency distribution below. Find the standard deviation.

Score	Students
50-59	6
60-69	6
70-79	5
80-89	6
90-99	17

A) 14.6

B) 13.9

C) 15.4

D) 16.2

17) _____

Use the range rule of thumb to estimate the standard deviation. Round results to the nearest tenth.

18) The heights in feet of people who work in an office are as follows.

5.9 5.5 5.8 5.4 5.6 5.7 5.9 6.2 5.8 5.7

A) 0.2

B) 1.2

C) 0.1

D) 0.5

18) _____

Find the variance for the given data. Round your answer to one more decimal place than the original data.

19) 1.5 5.9 7.5 2.3 6.0

A) 11.22

B) 6.64

C) 5.39

D) 6.74

19) _____

Use the empirical rule to solve the problem.

20) The amount of Jen's monthly phone bill is normally distributed with a mean of \$59 and a standard deviation of \$8. What percentage of her phone bills are between \$35 and \$83?

A) 99.99%

B) 68%

C) 99.7%

D) 95%

20) _____