

Name: \_\_\_\_\_ Date: \_\_\_\_\_

1. A data set consisting of observations on only a single characteristic, or attribute, is a \_\_\_\_\_ data set.
  - A) bivariate
  - B) multivariate
  - C) random
  - D) univariate
  
2. A data set consisting of two observations on each individual subject is a \_\_\_\_\_ data set.
  - A) bivariate
  - B) multivariate
  - C) random
  - D) univariate
  
3. Concerning univariate data, a \_\_\_\_\_ or \_\_\_\_\_ data set consists of non-numerical observations that may be placed in categories.
  - A) categorical; qualitative
  - B) categorical; quantitative
  - C) numerical; quantitative
  - D) numerical; qualitative
  
4. Concerning univariate data, a \_\_\_\_\_ or \_\_\_\_\_ data set consists of observations that are numbers.
  - A) categorical; qualitative
  - B) categorical; quantitative
  - C) numerical; quantitative
  - D) numerical; qualitative
  
5. If there are more than two observations on the same person, the data set is:
  - A) bivariate.
  - B) multivariate.
  - C) random.
  - D) univariate.

6. A survey records a person's smoking status as either "yes" or "no." This survey is recording what kind of data?
- A) categorical/qualitative
  - B) categorical/quantitative
  - C) numerical/quantitative
  - D) numerical/qualitative
7. A numerical data set is \_\_\_\_\_ if the set of all possible values is finite, or countably infinite.
- A) quantitative
  - B) discrete
  - C) qualitative
  - D) categorical
8. A numeric data set is \_\_\_\_\_ if the set of all possible values is an interval of numbers.
- A) continuous
  - B) discrete
  - C) qualitative
  - D) categorical
9. Bic corporation performs routine quality control testing on its lighters. Each lighter tested is struck and the trial is recorded as either a success (the lighter ignites) or a failure (the lighter does not ignite). This is an example of what kind of data?
- A) continuous
  - B) discrete
  - C) qualitative
  - D) quantitative
10. In order to assure prompt service, the city metro routinely records wait times at its various bus stops. The length of time a customer must wait for a bus is recorded in seconds. What type of data are these?
- A) qualitative
  - B) discrete
  - C) continuous
  - D) multivariate
11. Concerning qualitative data, the \_\_\_\_\_ of a particular class is the count for that class.
- A) relative frequency
  - B) distribution
  - C) frequency
  - D) probability

12. Concerning qualitative data, the \_\_\_\_\_ of a particular class is the frequency of the class divided by the total number of observations.
- A) relative frequency
  - B) numeric center
  - C) frequency
  - D) None of the above

13.

<b>Class</b>	<b>Frequency</b>	<b>Relative Frequency</b>
Strongly Disagree	10	0.172
Disagree		
Agree	22	0.379
Strongly Agree		0.190
<b>Total</b>	<b>58</b>	<b>1</b>

The above frequency distribution table is a summary of responses to a customer survey. Some of the values are purposely missing. What must the frequency of Strongly Agree be?

- A) 11
  - B) 0190
  - C) 0.259
  - D) 1
14. A cardiologist is studying the effects of soothing music on a person's heart rate. He records his patient's at-rest heart rate in whole beats per minute before and after they listen to soothing music. The variable "heart rate" in this study is BEST described as:
- A) qualitative.
  - B) continuous.
  - C) discrete.
  - D) categorical.
15. A frequency distribution table is BEST suited to summarize which type of data?
- A) continuous
  - B) bivariate
  - C) multivariate
  - D) qualitative

16. Relative frequency is BEST suited to describe which data type?
- A) continuous
  - B) quantitative
  - C) multivariate
  - D) qualitative
17. If all possible classes are represented, the sum of all relative frequencies must equal:
- A) 0.5.
  - B) 1.
  - C) 2.
  - D) None of the above

18.

Class	Frequency	Relative Frequency	Cumulative Relative Frequency
One			0.282
Two			0.776
Three			0.906
Four			0.956
Five			1
<b>Total</b>		<b>1</b>	

The above frequency distribution table is a summary of number of siblings a group of randomly selected American adults has. Some of the values are purposely missing. What is the relative frequency of people with two siblings?

- A) 0.494
- B) 0.130
- C) 0.776
- D) More information is needed to answer the question.

19.

<b>Class</b>	<b>Frequency</b>	<b>Relative Frequency</b>	<b>Cumulative Relative Frequency</b>
Rare		0.177	0.177
Medium Rare		0.097	0.274
Medium		0.331	0.605
Medium Well		0.355	0.960
Well Done		0.040	1.000
<b>Total</b>		<b>1</b>	

The above frequency distribution table is a summary of the steak orders at a steakhouse last Saturday night. Some of the values are purposely missing. What was the frequency of “Well Done” orders?

- A) 32
  - B) 24
  - C) 5
  - D) More information is needed to answer the question.
20. Two statistics students are arguing over which type of bar graph to use. One insists that a bar graph that displays the relative frequency will be better for displaying the overall shape of the data. The other holds that only a frequency bar graph will suffice. You happen along and hear their conversation. What advice do you give them?
- A) The relative frequency bar graph is superior at displaying the overall shape of the data.
  - B) The frequency bar graph is superior at displaying the overall shape of the data.
  - C) A pie chart would be needed here to display the overall shape of the data.
  - D) Either bar graph would suffice as they differ only in scale. The shape will be the same.
21. A distribution with only one peak is called:
- A) single peaking.
  - B) multimodal.
  - C) bimodal.
  - D) unimodal.
22. When two distinct symmetric unimodal populations with different centers are mixed, the resulting distribution will likely be:
- A) unimodal.
  - B) quasimodal.
  - C) bimodal.
  - D) skewed.

23. Concerning numeric data, a negatively skewed distribution has:
- A) most of the data concentrated in the lower values with relatively fewer larger values.
  - B) most of the data concentrated in the higher values with relatively fewer lower values.
  - C) a positive amount of values skewed across the center.
  - D) an equal amount of large and small values.

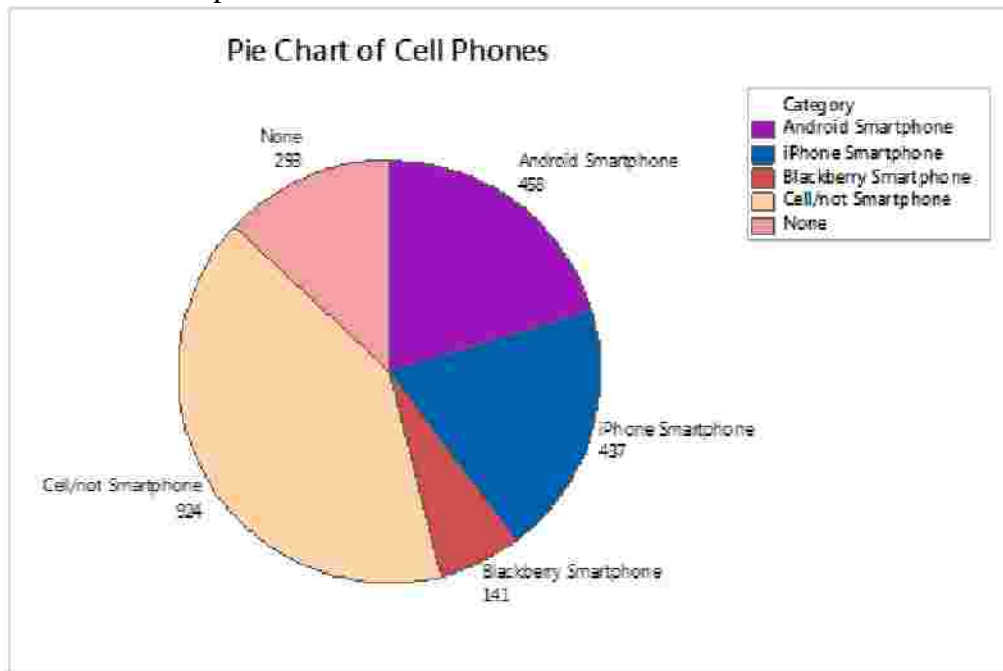
24.

<b>Response</b>	<b>Frequency</b>	<b>Relative Frequency</b>	<b>Cumulative Relative Frequency</b>
Agree	735	0.28	0.28
Disagree	1812	0.69	
Don't Know		0.03	1.00
<b>Total</b>	<b>2625</b>	<b>1</b>	

The above frequency distribution table is a summary of responses to a nationwide telephone survey conducted by the Pew Foundation in October 2010. U.S. adults ages 18 and older were asked “Some people say there is only one true love for each person. Do you agree or disagree?” Some of the table values are purposely missing. What was the frequency of the “Don't Know” responses?

- A) 78
  - B) 787
  - C) 813
  - D) More information is needed to answer the question.
25. A survey records the number of U.S. states each person has visited. This is an example of what type of data?
- A) categorical
  - B) continuous
  - C) discrete
  - D) qualitative

26. A 2012 survey examined cell phone ownership by U.S. adults. The results of the survey are shown in the pie chart below.



What percentage of the adults surveyed did NOT own a smartphone?

- A) 13%
- B) 45.9%
- C) 41%
- D) 54%