Business Statistics: A First Course, 6e **(Levine)**
Chapter 1 Introduction

1) The process of using data collected from a small group to reach conclusions about a large group is called
A) statistical inference.
B) the scientific method.
C) sampling.
D) descriptive statistics.
Answer: A
Difficulty: Easy
Keywords: inferential statistics

2) Those methods involving the collection, presentation, and characterization of a set of data in order to properly describe the various features of that set of data are called
A) statistical inference.
B) the scientific method.
C) sampling.
D) descriptive statistics.
Answer: D
Difficulty: Easy
Keywords: descriptive statistics

3) The collection and summarization of the socioeconomic and physical characteristics of the employees of a particular firm is an example of
A) inferential statistics.
B) descriptive statistics.
C) a parameter.
D) a statistic.
Answer: B
Difficulty: Easy
Keywords: descriptive statistics

4) The estimation of the population's average family expenditure on food based on the sample average expenditure of 1,000 families is an example of
A) inferential statistics.
B) descriptive statistics.
C) a parameter.
D) a statistic.
Answer: A
Difficulty: Easy
Keywords: inferential statistics

5) The universe or "totality of items or things" under consideration is called
A) a sample.
B) a population.
C) a parameter.
D) a statistic.
Answer: B
Difficulty: Easy
Keywords: population

6) The portion of the universe that has been selected for analysis is called
A) a sample.
B) a frame.
C) a parameter.
D) a statistic.
Answer: A
Difficulty: Easy
Keywords: sample

7) A summary measure that is computed to describe a characteristic from only a sample of the population is called
A) a parameter.
B) a census.
C) a statistic.
D) the scientific method.
Answer: C
Difficulty: Easy
Keywords: statistic

8) A summary measure that is computed to describe a characteristic of an entire population is called
A) a parameter.
B) a census.
C) a statistic.
D) the scientific method.
Answer: A
Difficulty: Easy
Keywords: parameter

9) Which of the following is most likely a population as opposed to a sample?
A) respondents to a newspaper survey
B) the first five students completing an assignment
C) every third person to arrive at the bank
D) registered voters in a county
Answer: D
Difficulty: Moderate
Keywords: population, sample

10) Which of the following is most likely a parameter as opposed to a statistic?
A) the average score of the first five students completing an assignment
B) the proportion of females registered to vote in a county
C) the average height of people randomly selected from a database
D) the proportion of trucks stopped yesterday that were cited for bad brakes
Answer: B
Difficulty: Moderate
Keywords: parameter, statistic

11) Which of the following is NOT an element of descriptive statistical problems?
A) an inference made about the population based on the sample
B) the population or sample of interest
C) tables, graphs, or numerical summary tools
D) identification of patterns in the data
Answer: A
Difficulty: Moderate
Keywords: descriptive statistics

12) A study is under way in Yosemite National Forest to determine the height of adult American pine trees. Specifically, the study is attempting to determine what factors aid a tree in reaching heights greater than 60 feet tall. It is estimated that the forest contains 25,000 adult American pines. The study involves collecting heights from 250 randomly selected adult American pine trees and analyzing the results. Identify the population from which the study was sampled.
A) the 250 randomly selected adult American pine trees
B) the 25,000 adult American pine trees in the forest
C) all the adult American pine trees taller than 60 feet
D) all American pine trees, of any age, in the forest
Answer: B
Difficulty: Moderate
Keywords: population, sample

13) A study is under way in Yosemite National Forest to determine the height of adult American pine trees. Specifically, the study is attempting to determine what factors aid a tree in reaching heights greater than 60 feet tall. It is estimated that the forest contains 25,000 adult American pines. The study involves collecting heights from 250 randomly selected adult American pine trees and analyzing the results. Identify the variable of interest in the study.
A) the age of an American pine tree in Yosemite National Forest
B) the height of an American pine tree in Yosemite National Forest
C) the number of American pine trees in Yosemite National Forest
D) the species of trees in Yosemite National Forest
Answer: B
Difficulty: Easy
Keywords: variable

14) A study is under way in Yosemite National Forest to determine the height of adult American pine trees. Specifically, the study is attempting to determine what factors aid a tree in reaching heights greater than 60 feet tall. It is estimated that the forest contains 25,000 adult American pines. The study involves collecting heights from 250 randomly selected adult American pine trees and analyzing the results. Identify the sample in the study.
A) the 250 randomly selected adult American pine trees
B) the 25,000 adult American pine trees in the forest
C) all the adult American pine trees taller than 60 feet
D) all American pine trees, of any age, in the forest
Answer: A
Difficulty: Easy
Keywords: population, sample

15) Most analysts focus on the cost of tuition as the way to measure the cost of a college education. But incidentals, such as textbook costs, are rarely considered. A researcher at Drummand University wanted to estimate the textbook costs of first-year students at Drummand. To do so, she monitored the textbook cost of 250 first-year students and found that their average textbook cost was $600 per semester. Identify the population of interest to the researcher.
A) all Drummand University students
B) all college students
C) all first-year Drummand University students
D) the 250 students that were monitored
Answer: C
Difficulty: Easy
Keywords: population, sample

16) Most analysts focus on the cost of tuition as the way to measure the cost of a college education. But incidentals, such as textbook costs, are rarely considered. A researcher at Drummand University wanted to estimate the textbook costs of first-year students at Drummand. To do so, she monitored the textbook cost of 250 first-year students and found that their average textbook cost was $600 per semester. Identify the variable of interest to the researcher.
A) the textbook cost of first-year Drummand University students
B) the year in school of Drummand University students
C) the age of Drummand University students
D) the cost of incidental expenses of Drummand University students
Answer: A
Difficulty: Easy
Keywords: variable

17) Most analysts focus on the cost of tuition as the way to measure the cost of a college education. But incidentals, such as textbook costs, are rarely considered. A researcher at Drummand University wanted to estimate the textbook costs of first-year students at Drummand. To do so, she monitored the textbook cost of 250 first-year students and found that their average textbook cost was $600 per semester. Identify the sample in the study.
A) all Drummand University students
B) all college students
C) all first-year Drummand University students
D) the 250 students that were monitored
Answer: D
Difficulty: Easy
Keywords: population, sample

18) Researchers suspect that the average number of units earned per semester by college students is rising. A researcher at Calendula College wishes to estimate the number of units earned by students during the spring semester at Calendula. To do so, he randomly selects 100 student transcripts and records the number of units each student earned in the spring term. He finds that the average number of semester units completed was 12.96 units per student. Identify the population of interest to the researcher.
A) all Calendula College students
B) all college students
C) all Calendula College students enrolled in the spring
D) all college students enrolled in the spring
Answer: C
Difficulty: Moderate
Keywords: population, sample

19) The average number of units earned per semester by college students is suspected to be rising. A researcher at Calendula College wishes to estimate the number of units earned by students during the spring semester at Calendula. To do so, he randomly selects 100 student transcripts and records the number of units each student earned in the spring term. Identify the variable of interest to the researcher.
A) the number of students enrolled at Calendula College during the spring term
B) the average indebtedness of Calendula College students enrolled in the spring
C) the age of Calendula College students enrolled in the spring
D) the number of units earned by Calendula College students during the spring term
Answer: D
Difficulty: Easy
Keywords: variable

20) Which of the following is a discrete quantitative (numerical) variable?
A) the Dow Jones Industrial average
B) the volume of water released from a dam
C) the distance you drove yesterday
D) the number of employees of an insurance company
Answer: D
Difficulty: Easy
Keywords: discrete random variable, types of data

21) Which of the following is a continuous quantitative (numerical) variable?
A) the color of a student's eyes
B) the number of employees of an insurance company
C) the amount of milk produced by a cow in one 24-hour period
D) the number of gallons of milk sold at the local grocery store yesterday
Answer: C
Difficulty: Easy
Keywords: continuous random variable, types of data

22) To monitor campus security, the campus police office is taking a survey of the number of students in a parking lot every 30 minutes for a 24-hour period with the goal of determining when patrols of the lot would serve the most students. If X is the number of students in the lot during each period of time, then X is an example of
A) a categorical random variable.
B) a discrete random variable.
C) a continuous random variable.
D) a statistic.
Answer: B
Difficulty: Moderate
Keywords: discrete random variable, types of data

23) Researchers are concerned that the weight of the average American school child is increasing, implying, among other things, that children's clothing should be manufactured and marketed in larger sizes. If X is the weight of school children sampled in a nationwide study, then X is an example of
A) a categorical random variable.
B) a discrete random variable.
C) a continuous random variable.
D) a parameter.
Answer: C
Difficulty: Moderate
Keywords: continuous random variable, types of data

24) The classification of student class designation (freshman, sophomore, junior, senior) is an example of
A) a categorical random variable.
B) a discrete random variable.
C) a continuous random variable.
D) a parameter.
Answer: A
Difficulty: Easy
Keywords: categorical random variable, types of data

25) The classification of student major (accounting, economics, management, marketing, other) is an example of
A) a categorical random variable.
B) a discrete random variable.
C) a continuous random variable.
D) a parameter.
Answer: A
Difficulty: Easy
Keywords: categorical random variable, types of data

26) The chancellor of a major university was concerned about alcohol abuse on her campus and wanted to find out the proportion of students at her university who visited campus bars on the weekend before the final exam week. Her assistant took a random sample of 250 students and computed the portion of students in the sample who visited campus bars on the weekend before the final exam. The portion of all students at her university who visited campus bars on the weekend before the final exam week is an example of
A) a population.
B) a sample.
C) a parameter.
D) a statistic.
Answer: C
Difficulty: Moderate
Keywords: parameter

27) The chancellor of a major university was concerned about alcohol abuse on her campus and wanted to find out the proportion of students at her university who visited campus bars on the weekend before the final exam week. Her assistant took a random sample of 250 students. The portion of students in the sample who visited campus bars on the weekend before the final exam week is an example of
A) a population.
B) a sample.
C) a parameter.
D) a statistic
Answer: D
Difficulty: Moderate
Keywords: statistic

28) The chancellor of a major university was concerned about alcohol abuse on her campus and wanted to find out the proportion of students at her university who visited campus bars on the weekend before the final exam week. Her assistant took a random sample of 250 students. The answer on "whether you visited campus bars on the weekend before the final exam week" from students in the sample is an example of
A) a categorical random variable.
B) a discrete random variable.
C) a continuous random variable.
D) a parameter.
Answer: A
Difficulty: Easy
Keywords: categorical random variable, types of data

TABLE 1-1
The manager of the customer service division of a major consumer electronics company is interested in determining whether the customers who have purchased a DVD player made by the company over the past 12 months are satisfied with their products.

29) Referring to Table 1-1, the population of interest is
A) all the customers who have bought a DVD player made by the company over the past 12 months.
B) all the customers who have bought a DVD player made by the company and brought it in for repair over the past 12 months.
C) all the customers who have used a DVD player over the past 12 months.
D) all the customers who have ever bought a DVD player made by the company.
Answer: A
Difficulty: Difficult
Keywords: population

30) Referring to Table 1-1, the possible responses to the question "How many DVD players made by other manufacturers have you used?" are values from a
A) discrete random variable.
B) continuous random variable.
C) categorical random variable.
D) parameter.
Answer: A
Difficulty: Easy
Keywords: discrete random variable, types of data

31) Referring to Table 1-1, the possible responses to the question "Are you happy, indifferent, or unhappy with the performance per dollar spent on the DVD player?" are values from a
A) discrete numerical random variable.
B) continuous numerical random variable.
C) categorical random variable.
D) parameter.
Answer: C
Difficulty: Easy
Keywords: categorical random variable, types of data

32) Referring to Table 1-1, the possible responses to the question "What is your annual income rounded to the nearest thousand?" are values from a
A) discrete numerical random variable.
B) continuous numerical random variable.
C) categorical random variable.
D) parameter.
Answer: A
Explanation: A) Even though money is usually considered as a continuous random variable, it should be considered as a discrete random variable when rounded to the nearest thousands.
Difficulty: Difficult
Keywords: discrete random variable, types of data

33) Referring to Table 1-1, the possible responses to the question "How much time do you use the DVD player every week on the average?" are values from a
A) discrete numerical random variable.
B) continuous numerical random variable.
C) categorical random variable.
D) parameter.
Answer: B
Difficulty: Easy
Keywords: continuous random variable, types of data

34) Referring to Table 1-1, the possible responses to the question "How many people are there in your household?" are values from a
A) discrete numerical random variable.
B) continuous numerical random variable.
C) categorical random variable.
D) parameter.
Answer: A
Difficulty: Easy
Keywords: discrete random variable, types of data

35) Referring to Table 1-1, the possible responses to the question "How would you rate the quality of your purchase experience with 1 = excellent, 2 = good, 3 = decent, 4 = poor, 5 = terrible?" are values from a
A) discrete numerical random variable.
B) continuous numerical random variable.
C) categorical random variable.
D) parameter.
Answer: C
Difficulty: Easy
Keywords: categorical random variable, types of data

36) Referring to Table 1-1, the possible responses to the question "What brand of DVD player did you purchase?" are values from a
A) discrete numerical random variable.
B) continuous numerical random variable.
C) categorical random variable.
D) parameter.
Answer: C
Difficulty: Easy
Keywords: categorical random variable, types of data

37) Referring to Table 1-1, the possible responses to the question "Out of a 100 point score with 100 being the highest and 0 being the lowest, what is your satisfaction level on the videocassette recorder that you purchased?" are values from a
A) discrete numerical random variable.
B) continuous numerical random variable.
C) categorical random variable.
D) parameter.
Answer: A
Difficulty: Moderate
Keywords: discrete random variable, types of data

38) Referring to Table 1-1, the possible responses to the question "In which year were you born?" are values from a
A) discrete numerical random variable.
B) continuous numerical random variable.
C) categorical random variable.
D) parameter.
Answer: A
Difficulty: Moderate
Keywords: discrete random variable, types of data

39) True or False: A population is the totality of items or things under consideration.
Answer: TRUE
Difficulty: Easy
Keywords: population

40) True or False: A sample is the portion of the universe that is selected for analysis.
Answer: TRUE
Difficulty: Easy
Keywords: sample

41) True or False: Problems may arise when statistically unsophisticated users who do not understand the assumptions behind the statistical procedures or their limitations are misled by results obtained from computer software.
Answer: TRUE
Difficulty: Easy
Keywords: statistical package

42) True or False: Managers need an understanding of statistics to be able to present and describe information accurately, draw conclusions about large populations based on small samples, improve processes, and make reliable forecasts.
Answer: TRUE
Difficulty: Easy
Keywords: reasons for learning statistics

43) True or False: The possible responses to the question "How long have you been living at your current residence?" are values from a continuous variable.
Answer: TRUE
Difficulty: Moderate
Keywords: continuous random variable, types of data

44) True or False: The possible responses to the question "How many times in the past three months have you visited a city park?" are values from a discrete variable.
Answer: TRUE
Difficulty: Moderate
Keywords: discrete random variable, types of data

45) True or False: A continuous variable may take on any value within its relevant range even though the measurement device may not be precise enough to record it.
Answer: TRUE
Difficulty: Moderate
Keywords: continuous random variable, types of data

46) True or False: Faculty rank (professor to lecturer) is an example of discrete numerical data.
Answer: FALSE
Difficulty: Easy
Keywords: categorical random variable, types of data

47) True or False: Student grades (A to F) are an example of continuous numerical data.
Answer: FALSE
Difficulty: Moderate
Keywords: categorical random variables, types of data

48) True or False: The amount of coffee consumed by an individual in a day is an example of a discrete numerical variable.
Answer: FALSE
Difficulty: Moderate
Keywords: continuous random variables, types of data

49) True or False: A statistic is usually used to provide an estimate for a usually unobserved parameter.
Answer: TRUE
Difficulty: Moderate
Keywords: statistic, parameter, inferential statistics

50) True or False: A statistic is usually unobservable while a parameter is usually observable.
Answer: FALSE
Difficulty: Moderate
Keywords: statistic, parameter, inferential statistic

51) True or False: The answer to the question "What is your favorite color?" is an example of a continuous variable.
Answer: FALSE
Difficulty: Easy
Keywords: continuous random variable

52) True or False: The answer to the question "How do you rate the quality of your business statistics course" is an example of a qualitative variable.
Answer: TRUE
Difficulty: Easy
Keywords: categorical random variable

53) True or False: The answer to the question "How many hours on average do you spend watching TV

every week?" is an example of a discrete variable.
Answer: TRUE
Difficulty: Easy
Keywords: discrete random variable

54) True or False: The answer to the question "What is your sleeping bag temperature rating?" is an example of a categorical variable.
Answer: FALSE
Difficulty: Easy
Keywords: categorical random variable

55) True or False: A professor computing the sample average exam score of 20 students and using it to estimate the average exam score for the 1,500 students taking the exam is an example of inferential statistics.
Answer: TRUE
Difficulty: Easy
Keywords: descriptive statistics, inferential statistics

56) True or False: Using the number of registered voters who turned out to vote for the primary in Iowa to predict the number of registered voters who will turn out to vote in Vermont's primary is an example of descriptive statistics.
Answer: FALSE
Difficulty: Easy
Keywords: descriptive statistics, inferential statistics

57) True or False: Compiling the number of registered voters who turned out to vote for the primary in Iowa is an example of descriptive statistics.
Answer: TRUE
Difficulty: Easy
Keywords: descriptive statistics, inferential statistics

58) The Human Resources Director of a large corporation wishes to develop an employee benefits package and decides to select 500 employees from a list of all (N = 40,000) workers in order to study their preferences for the various components of a potential package. All the employees in the corporation constitute the _____.
Answer: population
Difficulty: Easy
Keywords: population

59) The Human Resources Director of a large corporation wishes to develop an employee benefits package and decides to select 500 employees from a list of all (N = 40,000) workers in order to study their preferences for the various components of a potential package. The 500 employees who will participate in this study constitute the _____.
Answer: sample
Difficulty: Easy
Keywords: sample

60) The Human Resources Director of a large corporation wishes to develop an employee benefits package and decides to select 500 employees from a list of all (N = 40,000) workers in order to study their preferences for the various components of a potential package. The Director will use the data from the sample to compute _____.
Answer: statistics
Difficulty: Easy
Keywords: statistic

61) The Human Resources Director of a large corporation wishes to develop an employee benefits package and decides to select 500 employees from a list of all (N = 40,000) workers in order to study their preferences for the various components of a potential package. Information obtained from the sample will be used to draw conclusions about the true population _____.
Answer: parameters
Difficulty: Easy
Keywords: parameter

62) The Human Resources Director of a large corporation wishes to develop an employee benefits package and decides to select 500 employees from a list of all (N = 40,000) workers in order to study their preferences for the various components of a potential package. In this study, methods involving the collection, presentation, and characterization of the data are called _____.
Answer: descriptive statistics/methods
Difficulty: Easy
Keywords: descriptive statistics

63) The Human Resources Director of a large corporation wishes to develop an employee benefits package and decides to select 500 employees from a list of all (N = 40,000) workers in order to study their preferences for the various components of a potential package. In this study, methods that result in decisions concerning population characteristics based only on the sample results are called _____.
Answer: inferential statistics/methods
Difficulty: Easy
Keywords: inferential statistics

64) The oranges grown on corporate farms in an agricultural state were damaged by some unknown fungi a few years ago. Suppose the manager of a large farm wanted to study the impact of the fungi on the orange crops on a daily basis over a six-week period. On each day a random sample of orange trees was selected from within a random sample of acres. The daily average number of damaged oranges per tree and the proportion of trees having damaged oranges were calculated. The two main measures calculated each day (i.e., average number of damaged oranges per tree and proportion of trees having damaged oranges) are called _____.
Answer: statistics
Difficulty: Moderate
Keywords: statistic

65) The oranges grown on corporate farms in an agricultural state were damaged by some unknown fungi a few years ago. Suppose the manager of a large farm wanted to study the impact of the fungi on the orange crops on a daily basis over a six-week period. On each day a random sample of orange trees was selected from within a random sample of acres. The daily average number of damaged oranges per tree and the proportion of trees having damaged oranges were calculated. The two main measures calculated each day (i.e., average number of damaged oranges per tree and proportion of trees having damaged oranges) may be used on a daily basis to estimate the respective true population _____.
Answer: parameters
Difficulty: Easy
Keywords: parameters

66) The oranges grown on corporate farms in an agricultural state were damaged by some unknown fungi a few years ago. Suppose the manager of a large farm wanted to study the impact of the fungi on the orange crops on a daily basis over a six-week period. On each day a random sample of orange trees was selected from within a random sample of acres. The daily average number of damaged oranges per tree and the proportion of trees having damaged oranges were calculated. In this study, drawing conclusions on any one day about the true population characteristics based on information obtained from the sample is called _____.
Answer: inferential statistics/methods
Difficulty: Moderate
Keywords: inferential statistics

67) The oranges grown on corporate farms in an agricultural state were damaged by some unknown fungi a few years ago. Suppose the manager of a large farm wanted to study the impact of the fungi on the orange crops on a daily basis over a six-week period. On each day a random sample of orange trees was selected from within a random sample of acres. The daily average number of damaged oranges per tree and the proportion of trees having damaged oranges were calculated. In this study, the presentation and characterization of the two main measures calculated each day (i.e., average number of damaged oranges per tree and proportion of trees having damaged oranges) is called _____.
Answer: descriptive statistics/methods
Difficulty: Moderate
Keywords: descriptive statistics

68) The Quality Assurance Department of a large urban hospital is attempting to monitor and evaluate patient satisfaction with hospital services. Prior to discharge, a random sample of patients is asked to fill out a questionnaire to rate such services as medical care, nursing, therapy, laboratory, food, and cleaning. The Quality Assurance Department prepares weekly reports that are presented at the Board of Directors meetings and extraordinary/atypical ratings are easy to flag. Values computed from the sample results each week are called _____.
Answer: statistics
Difficulty: Easy
Keywords: statistic

69) The Quality Assurance Department of a large urban hospital is attempting to monitor and evaluate patient satisfaction with hospital services. Prior to discharge, a random sample of patients is asked to fill out a questionnaire to rate such services as medical care, nursing, therapy, laboratory, food, and cleaning. The Quality Assurance Department prepares weekly reports that are presented at the Board of Directors meetings and extraordinary/atypical ratings are easy to flag. True population characteristics estimated from the sample results each week are called _____.
Answer: parameters
Difficulty: Easy
Keywords: parameter

70) The Commissioner of Health in New York State wanted to study malpractice litigation in New York. A sample of 31 thousand medical records was drawn from a population of 2.7 million patients who were discharged during 2010. The proportion of malpractice claims filed from the sample of 31 thousand patients is a _____.
Answer: statistic
Difficulty: Moderate
Keywords: statistic

71) The Commissioner of Health in New York State wanted to study malpractice litigation in New York. A sample of 31 thousand medical records was drawn from a population of 2.7 million patients who were discharged during 2010. The true proportion of malpractice claims filed from the population of 2.7 million patients is a _____.
Answer: parameter
Difficulty: Easy
Keywords: parameter

72) The Commissioner of Health in New York State wanted to study malpractice litigation in New York. A sample of 31 thousand medical records was drawn from a population of 2.7 million patients who were discharged during 2010. Using the information obtained from the sample to predict population characteristics with respect to malpractice litigation is an example of _____.
Answer: inferential statistics
Difficulty: Moderate
Keywords: inferential statistics

73) The Commissioner of Health in New York State wanted to study malpractice litigation in New York. A sample of 31 thousand medical records was drawn from a population of 2.7 million patients who were discharged during 2010. The collection, presentation, and characterization of the data from patient medical records are examples of _____.
Answer: descriptive statistics/methods
Difficulty: Easy
Keywords: descriptive statistics

74) An insurance company evaluates many numerical variables about a person before deciding on an appropriate rate for automobile insurance. The number of claims a person has made in the last three years is an example of a _____ numerical variable.
Answer: discrete
Difficulty: Easy
Keywords: discrete random variable, types of data

75) An insurance company evaluates many numerical variables about a person before deciding on an appropriate rate for automobile insurance. The distance a person drives in a year is an example of a _____ variable.
Answer: continuous
Difficulty: Easy
Keywords: continuous random variable, types of data

76) An insurance company evaluates many numerical variables about a person before deciding on an appropriate rate for automobile insurance. A person's age is an example of a _____ numerical variable.
Answer: continuous
Difficulty: Easy
Keywords: continuous random variable, types of data

77) An insurance company evaluates many numerical variables about a person before deciding on an appropriate rate for automobile insurance. How long a person has been a licensed driver is an example of a _____ numerical variable.
Answer: continuous
Difficulty: Moderate
Keywords: continuous random variable, types of data

78) An insurance company evaluates many numerical variables about a person before deciding on an appropriate rate for automobile insurance. The number of tickets a person has received in the last three years is an example of a _____ numerical variable.
Answer: discrete
Difficulty: Easy
Keywords: discrete random variable, types of data

79) In purchasing an automobile, there are a number of variables to consider. The body style of the car (sedan, coupe, wagon, etc.) is an example of a _____ variable.
Answer: categorical
Difficulty: Easy
Keywords: categorical random variable, types of data

80) In purchasing an automobile, there are a number of variables to consider. The classification of the car as a subcompact, compact, standard, or luxury size is an example of a _____ variable.
Answer: categorical
Difficulty: Easy
Keywords: categorical random variable, types of data

81) In purchasing an automobile, there are a number of variables to consider. The color of the car is an example of a _____ variable.
Answer: categorical
Difficulty: Easy
Keywords: categorical random variable, types of data

82) Most colleges admit students based on their achievements in a number of different areas. Whether a student has taken any advanced placement courses is an example of a _____ variable.
Answer: categorical
Difficulty: Easy
Keywords: categorical random variable, types of data

83) Most colleges admit students based on their achievements in a number of different areas. The grade obtained in senior level English (A, B, C, D, or F) is an example of a _____ variable.
Answer: categorical
Difficulty: Moderate
Keywords: categorical random variable, types of data

84) Most colleges admit students based on their achievements in a number of different areas. The total SAT score achieved by a student is an example of a _____ numerical variable.
Answer: discrete
Difficulty: Moderate
Keywords: discrete random variable, types of data

85) The Dean of Students conducted a survey on campus. The gender of the student is an example of a _____ variable.
Answer: categorical
Difficulty: Easy
Keywords: categorical random variable, types of data

86) The Dean of Students conducted a survey on campus. Class designation (Freshman, Sophomore, Junior, Senior) is an example of a _____ variable.
Answer: categorical
Difficulty: Easy
Keywords: categorical random variable, types of data

87) The Dean of Students conducted a survey on campus. The major area of study is an example of a _____ variable.
Answer: categorical
Difficulty: Easy
Keywords: categorical random variable, types of data

88) The Dean of Students conducted a survey on campus. The SAT score in mathematics is an example of a _____ numerical variable.
Answer: discrete
Difficulty: Easy
Keywords: continuous random variable, types of data

89) The Dean of Students conducted a survey on campus. Grade point average (GPA) is an example of a _____ numerical variable.
Answer: continuous
Difficulty: Easy
Keywords: continuous random variable, types of data

90) The Dean of Students conducted a survey on campus. The number of credits currently enrolled for is an example of a _____ numerical variable.
Answer: discrete
Difficulty: Easy
Keywords: discrete random variable, types of data

91) The Dean of Students conducted a survey on campus. The number of clubs, groups, teams, and organizations affiliated with on campus is an example of a _____ numerical variable.
Answer: discrete
Difficulty: Easy
Keywords: discrete random variable, types of data

92) A personal computer user survey was conducted. The computer brand primarily used is an example of a _____ variable.
Answer: categorical
Difficulty: Easy
Keywords: categorical random variable, types of data

93) A personal computer user survey was conducted. The number of personal computers owned is an example of a _____ numerical variable.
Answer: discrete
Difficulty: Easy
Keywords: discrete random variable, types of data

94) A personal computer user survey was conducted. The number of years using a personal computer is an example of a _____ numerical variable.
Answer: continuous
Difficulty: Moderate
Keywords: continuous random variable, types of data

95) A personal computer user survey was conducted. The hours of personal computer use per week is an example of a _____ numerical variable
Answer: continuous
Difficulty: Moderate
Keywords: continuous random variable, types of data

96) A personal computer user survey was conducted. The primary word processing package used is an example of a _____ variable
Answer: categorical
Difficulty: Easy
Keywords: categorical random variable, types of data

97) A personal computer user survey was conducted. The number of computer magazine subscriptions is an example of a _____ numerical variable.
Answer: discrete
Difficulty: Moderate
Keywords: discrete random variable, types of data

98) True or False: The brand of TV one owns is an example of a numerical variable.
Answer: False
Difficulty: Easy
Keywords: categorical random variable

99) True or False: Whether the university is private or public is an example of a categorical variable.
Answer: TRUE
Difficulty: Easy
Keywords: categorical random variable

100) True or False: Marital status is an example of a numerical variable.
Answer: FALSE
Difficulty: Easy
Keywords: categorical random variable

101) True or False: The grade level (K-12) of a student is an example of a numerical variable.
Answer: FALSE
Difficulty: Easy
Keywords: categorical random variable

102) True or False: The level of satisfaction ("Very unsatisfied", "Fairly unsatisfied", "Fairly satisfied", and "Very satisfied") in a class is an example of a categorical variable.
Answer: TRUE
Difficulty: Easy
Keywords: categorical random variable

103) True or False: The quality ("terrible", "poor", "fair", "acceptable", "very good" and "excellent") of a day care center is an example of a numerical variable.
Answer: FALSE
Difficulty: Easy
Keywords: categorical random variable

104) True or False: The amount of alcohol consumed by a person per week is an example of a continuous variable.
Answer: TRUE
Difficulty: Easy
Keywords: continuous random variable

105) True or False: The number of defective apples in a single box is an example of a continuous variable.
Answer: FALSE
Difficulty: Easy
Keywords: discrete random variable, continuous random variable

106) True or False: The amount of calories contained in a 12-ounce package of cheese is an example of a discrete variable.
Answer: FALSE
Difficulty: Easy
Keywords: discrete random variable, continuous random variable

107) True or False: The amount of time a student spent studying for an exam is an example of a

continuous variable.
Answer: TRUE
Difficulty: Easy
Keywords: continuous random variable

TABLE 1-2
A *Wall Street Journal* poll asked 2,150 adults in the United States a series of questions to find out their view on the U.S. economy.

108) Referring to Table 1-2, the population of interest is
A) all the males living in the United States when the poll was taken.
B) all the females living in the United States when the poll was taken.
C) all the adults living in the United States when the poll was taken.
D) all the people living in the United States when the poll was taken.
Answer: C
Difficulty: Easy
Keywords: population

109) Referring to Table 1-2, the 2,150 adults make up
A) the population.
B) the sample.
C) the parameter.
D) the statistic.
Answer: B
Difficulty: Easy
Keywords: sample

110) Referring to Table 1-2, the possible responses to the question "How satisfied are you with the U.S. economy today with 1 = very satisfied, 2 = moderately satisfied, 3 = neutral, 4 = moderately dissatisfied and 5 = very dissatisfied?" are values from a
A) discrete random variable.
B) continuous random variable.
C) categorical random variable.
D) parameter.
Answer: C
Difficulty: Easy
Keywords: categorical random variable, types of data

111) Referring to Table 1-2, the possible responses to the question "How many people in your household are unemployed currently?" are values from a
A) discrete numerical random variable.
B) continuous numerical random variable.
C) categorical random variable.
D) parameter.
Answer: A
Difficulty: Easy
Keywords: discrete random variable, types of data

112) Referring to Table 1-2, the possible responses to the question "What do you think is the current number of people unemployed in the country?" are values from a
A) discrete numerical random variable.
B) continuous numerical random variable.
C) categorical random variable.
D) parameter.
Answer: A
Difficulty: Moderate
Keywords: discrete random variable, types of data

113) Referring to Table 1-2, the possible responses to the question "How many more months do you think the U.S. economy will require to get out of a recession?" are values from a
A) discrete numerical random variable.
B) continuous numerical random variable.
C) categorical random variable.
D) parameter.
Answer: A
Difficulty: Easy
Keywords: discrete random variable, types of data

114) Referring to Table 1-2, the possible responses to the question "How many out of every 10 U.S. voters do you think feel that the U.S. economy is in a good shape?" are values from a
A) discrete numerical random variable.
B) continuous numerical random variable.
C) categorical random variable.
D) parameter.
Answer: A
Explanation: A) The percentage of voters is the ratio of two discrete variables and, hence, the ratio is also a discrete variable.
Difficulty: Easy
Keywords: discrete random variable, types of data

115) Referring to Table 1-2, the possible responses to the question "How would you rate the condition of the U.S. economy with 1 = excellent, 2 = good, 3 = decent, 4 = poor, 5 = terrible?" are values from a
A) discrete numerical random variable.
B) continuous numerical random variable.
C) categorical random variable.
D) parameter.
Answer: C
Difficulty: Easy
Keywords: categorical random variable, types of data

116) Referring to Table 1-2, the possible responses to the question "Are you 1. Currently employed, 2. Unemployed but actively looking for job, 3. Unemployed and quit looking for job?" are values from a
A) discrete numerical random variable.
B) continuous numerical random variable.
C) categorical random variable.
D) parameter.
Answer: C
Difficulty: Easy
Keywords: categorical random variable, types of data

117) Referring to Table 1-2, the possible responses to the question "In which year do you think the last recession in the United States started?" are values from a
A) discrete numerical random variable.
B) continuous numerical random variable.
C) categorical random variable.
D) parameter.
Answer: A
Difficulty: Easy
Keywords: discrete random variable, types of data

118) Referring to Table 1-2, the possible responses to the question "On the scale of 1 to 100 with 1 being extremely anxious and 100 being not anxious at all, rate your level of anxiety in this U.S. economy" are values from a
A) discrete numerical random variable.
B) continuous numerical random variable.
C) categorical random variable.
D) parameter.
Answer: A
Difficulty: Moderate
Keywords: discrete random variable, types of data