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| Multiple Choice |

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| 1. Different methods of developing useful information from large data bases are dealt with under

|  |  |  |
| --- | --- | --- |
|   | a.  | data manipulation. |
|   | b.  | data warehousing. |
|   | c.  | big data. |
|   | d.  | data mining. |

|  |  |
| --- | --- |
| *ANSWER:* | d |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.07 - Big Data and Data Mining |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Remember |
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| 2. The process of capturing, storing, and maintaining data is known as

|  |  |  |
| --- | --- | --- |
|   | a.  | data manipulation. |
|   | b.  | data mining. |
|   | c.  | data warehousing. |
|   | d.  | big data. |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.07 - Big Data and Data Mining |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
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| 3. The subject of **data mining** deals with

|  |  |  |
| --- | --- | --- |
|   | a.  | methods for developing useful decision-making information from large data bases. |
|   | b.  | keeping data secure so that unauthorized individuals cannot access the data. |
|   | c.  | computational procedure for data analysis. |
|   | d.  | computing the average for data. |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.07 - Big Data and Data Mining |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
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| 4. In a questionnaire, respondents are asked to mark their gender as male or female. The scale of measurement for gender is \_\_\_\_\_ scale.

|  |  |  |
| --- | --- | --- |
|   | a.  | ordinal |
|   | b.  | nominal |
|   | c.  | ratio |
|   | d.  | interval |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
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| 5. The scale of measurement that is used to rank order the observation for a variable is called the \_\_\_\_\_ scale.

|  |  |  |
| --- | --- | --- |
|   | a.  | ratio |
|   | b.  | ordinal |
|   | c.  | nominal |
|   | d.  | interval |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
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| 6. A restaurant asks their customers to fill out a questionnaire indicating whether their service was excellent, very good, good, or poor. The rating scale used is an example of the \_\_\_\_\_ scale.

|  |  |  |
| --- | --- | --- |
|   | a.  | ordinal |
|   | b.  | ratio |
|   | c.  | nominal |
|   | d.  | interval |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
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| 7. The data measured on ordinal scale exhibits all the properties of data measured on

|  |  |  |
| --- | --- | --- |
|   | a.  | ratio scale. |
|   | b.  | interval scale. |
|   | c.  | nominal scale. |
|   | d.  | nominal and interval scales. |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
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| 8. Measurement of body temperature is an example of a variable that uses

|  |  |  |
| --- | --- | --- |
|   | a.  | the ratio scale. |
|   | b.  | the interval scale. |
|   | c.  | the ordinal scale. |
|   | d.  | either the ratio or the ordinal scale. |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
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| 9. Arithmetic operations provide meaningful results for variables that

|  |  |  |
| --- | --- | --- |
|   | a.  | use any scale of measurement except nominal and ordinal. |
|   | b.  | appear as non-numerical values. |
|   | c.  | are quantitative. |
|   | d.  | have non-negative values. |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
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| 10. Height is an example of a variable that uses the \_\_\_\_\_ scale.

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| --- | --- | --- |
|   | a.  | ratio |
|   | b.  | interval |
|   | c.  | nominal |
|   | d.  | ordinal |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
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| 11. Data measured a nominal scale

|  |  |  |
| --- | --- | --- |
|   | a.  | must be alphabetic. |
|   | b.  | can be either numeric or nonnumeric. |
|   | c.  | must be numeric. |
|   | d.  | must rank order the data. |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
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| 12. The scale of measurement that has an inherent zero value defined is the \_\_\_\_\_ scale.

|  |  |  |
| --- | --- | --- |
|   | a.  | ratio |
|   | b.  | nominal |
|   | c.  | ordinal |
|   | d.  | interval |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
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| 13. The measurement scale suitable for quantitative data is \_\_\_\_\_ scale.

|  |  |  |
| --- | --- | --- |
|   | a.  | the ordinal  |
|   | b.  | the nominal |
|   | c.  | either the interval or ratio |
|   | d.  | only the interval |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
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| 14. Data are

|  |  |  |
| --- | --- | --- |
|   | a.  | always numeric. |
|   | b.  | always non-numeric. |
|   | c.  | the raw material of statistics. |
|   | d.  | always categorical. |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
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| 15. The entities on which data are collected are

|  |  |  |
| --- | --- | --- |
|   | a.  | elements. |
|   | b.  | populations. |
|   | c.  | samples. |
|   | d.  | observations. |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
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| 16. The set of measurements collected for a particular element are called

|  |  |  |
| --- | --- | --- |
|   | a.  | variables. |
|   | b.  | observations. |
|   | c.  | samples. |
|   | d.  | populations. |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
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| 17. A characteristic of interest for the elements is called a

|  |  |  |
| --- | --- | --- |
|   | a.  | sample. |
|   | b.  | data set. |
|   | c.  | variable. |
|   | d.  | quality. |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
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| 18. All the data collected in a particular study are referred to as the

|  |  |  |
| --- | --- | --- |
|   | a.  | sample. |
|   | b.  | variable. |
|   | c.  | data set. |
|   | d.  | population. |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
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| 19. Quantitative data

|  |  |  |
| --- | --- | --- |
|   | a.  | are always non-numeric. |
|   | b.  | may be either numeric or non-numeric. |
|   | c.  | are always numeric. |
|   | d.  | are never numeric. |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Understand |
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| 20. In a questionnaire, respondents are asked to mark their marital status as single, married, divorced, or widowed. Marital status is an example of a(n) \_\_\_\_\_ variable.

|  |  |  |
| --- | --- | --- |
|   | a.  | categorical |
|   | b.  | quantitative |
|   | c.  | interval-scale |
|   | d.  | ordinal-scale |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
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| 21. The number of observations will always be the same as the

|  |  |  |
| --- | --- | --- |
|   | a.  | number of variables. |
|   | b.  | number of elements. |
|   | c.  | population size. |
|   | d.  | sample size. |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Understand |
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| 22. Categorical data

|  |  |  |
| --- | --- | --- |
|   | a.  | must be numeric. |
|   | b.  | must be nonnumeric. |
|   | c.  | cannot be numeric. |
|   | d.  | may be either numeric or nonnumeric. |

|  |  |
| --- | --- |
| *ANSWER:* | d |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Understand |
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| 23. Categorical data

|  |  |  |
| --- | --- | --- |
|   | a.  | indicate either how much or how many. |
|   | b.  | cannot be numeric |
|   | c.  | are labels used to identify attributes of elements. |
|   | d.  | must be nonnumeric. |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Understand |
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| 24. Ordinary arithmetic operations are meaningful

|  |  |  |
| --- | --- | --- |
|   | a.  | only with categorical data. |
|   | b.  | only with quantitative data. |
|   | c.  | either with quantitative or categorical data. |
|   | d.  | with neither quantitative or categorical data. |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Understand |
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| 25. A student’s dormitory room number is an example of

|  |  |  |
| --- | --- | --- |
|   | a.  | a quantitative variable. |
|   | b.  | either a quantitative or a categorical variable. |
|   | c.  | an exchange variable. |
|   | d.  | a categorical variable. |

|  |  |
| --- | --- |
| *ANSWER:* | d |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
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| 26. Goals scored in a soccer game is an example of

|  |  |  |
| --- | --- | --- |
|   | a.  | a categorical variable. |
|   | b.  | a quantitative variable. |
|   | c.  | either a quantitative or categorical variable. |
|   | d.  | neither a quantitative nor categorical variable. |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Understand |
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| 27. For ease of data entry into a university database, 1 denotes that the student is a freshman, 2 indicates a sophomore, 3 indicates a junior, and 4 indicates that the student is a senior. In this case, data are

|  |  |  |
| --- | --- | --- |
|   | a.  | categorical. |
|   | b.  | quantitative. |
|   | c.  | either categorical or quantitative. |
|   | d.  | neither categorical nor quantitative. |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Understand |
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| 28. Arithmetic operations are inappropriate for

|  |  |  |
| --- | --- | --- |
|   | a.  | categorical data. |
|   | b.  | quantitative data. |
|   | c.  | both categorical and quantitative data. |
|   | d.  | large data sets. |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Remember |
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| 29. Cost of a theater ticket is an example of

|  |  |  |
| --- | --- | --- |
|   | a.  | categorical data. |
|   | b.  | either categorical or quantitative data. |
|   | c.  | nominal data. |
|   | d.  | quantitative data. |

|  |  |
| --- | --- |
| *ANSWER:* | d |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Understand |
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| 30. Data collected at the same, or approximately the same point in time are \_\_\_\_\_ data.

|  |  |  |
| --- | --- | --- |
|   | a.  | time series |
|   | b.  | approximate time series |
|   | c.  | cross-sectional |
|   | d.  | approximate |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Remember |
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| 31. Data collected over several time periods are \_\_\_\_\_ data.

|  |  |  |
| --- | --- | --- |
|   | a.  | time series  |
|   | b.  | time controlled |
|   | c.  | cross-sectional |
|   | d.  | periodic |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Remember |
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| 32. Statistical studies in which researchers do not control variables of interest are \_\_\_\_\_ studies.

|  |  |  |
| --- | --- | --- |
|   | a.  | experimental  |
|   | b.  | random variable |
|   | c.  | inferential |
|   | d.  | observational |

|  |  |
| --- | --- |
| *ANSWER:* | d |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.03 - Data Sources |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Understand |
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| 33. Statistical studies in which researchers control variables of interest are \_\_\_\_\_ studies.

|  |  |  |
| --- | --- | --- |
|   | a.  | experimental |
|   | b.  | random variable |
|   | c.  | inferential |
|   | d.  | observational |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.03 - Data Sources |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
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| 34. The summaries of data, which may be tabular, graphical, or numerical, are referred to as \_\_\_\_\_ statistics.

|  |  |  |
| --- | --- | --- |
|   | a.  | inferential  |
|   | b.  | descriptive |
|   | c.  | observational |
|   | d.  | experimental |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.04 - Descriptive Statistics |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: Descriptive Statistics |
| *KEYWORDS:* | Bloom's: Remember |
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| 35. Statistical inference

|  |  |  |
| --- | --- | --- |
|   | a.  | refers to the process of drawing inferences about the sample based on the characteristics of the population. |
|   | b.  | is the same as descriptive statistics. |
|   | c.  | is the process of drawing inferences about the population based on the information taken from the sample. |
|   | d.  | is the same as a census. |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.05 - Statistical Inference |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: Statistical Inference |
| *KEYWORDS:* | Bloom's: Understand |
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| 36. The collection of all elements of interest in a study is

|  |  |  |
| --- | --- | --- |
|   | a.  | the population. |
|   | b.  | the sample. |
|   | c.  | a survey. |
|   | d.  | a census. |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.05 - Statistical Inference |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: Statistical Inference |
| *KEYWORDS:* | Bloom's: Remember |
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| 37. A portion selected to represent the whole is called a

|  |  |  |
| --- | --- | --- |
|   | a.  | survey. |
|   | b.  | population. |
|   | c.  | census. |
|   | d.  | sample. |

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| *ANSWER:* | d |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.05 - Statistical Inference |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: Statistical Inference |
| *KEYWORDS:* | Bloom's: Understand |
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| 38. In a sample of 800 students in a university, 240 or 30% are Business majors. The 30% is an example of

|  |  |  |
| --- | --- | --- |
|   | a.  | a sample. |
|   | b.  | a population. |
|   | c.  | statistical inference. |
|   | d.  | descriptive statistics. |

|  |  |
| --- | --- |
| *ANSWER:* | d |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.04 - Descriptive Statistics |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: Descriptive Statistics |
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| 39. In a sample of 400 students in a university, 80 or 20% are Business majors. Based on the above information, the school's paper reported that "20% of all the students at the university are Business majors." This report is an example of

|  |  |  |
| --- | --- | --- |
|   | a.  | a sample. |
|   | b.  | a population. |
|   | c.  | statistical inference. |
|   | d.  | descriptive statistics. |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.05 - Statistical Inference |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: Statistical Inference |
| *KEYWORDS:* | Bloom's: Understand |
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| 40. Five hundred residents of a city with a population of 240,495 are polled to obtain information on voting intentions in an upcoming city election. The five hundred residents in this study is an example of a(n)

|  |  |  |
| --- | --- | --- |
|   | a.  | census. |
|   | b.  | sample. |
|   | c.  | observation. |
|   | d.  | population. |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.05 - Statistical Inference |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: Statistical Inference |
| *KEYWORDS:* | Bloom's: Understand |
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| 41. A statistics professor asked students in a class their ages. Based on this information, the professor states that the average age of all the students in the university is 24 years. This is an example of

|  |  |  |
| --- | --- | --- |
|   | a.  | an observational study. |
|   | b.  | descriptive statistics. |
|   | c.  | an experiment. |
|   | d.  | statistical inference. |

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| --- | --- |
| *ANSWER:* | d |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.05 - Statistical Inference |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: Statistical Inference |
| *KEYWORDS:* | Bloom's: Understand |
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| 42. The owner of a factory regularly requests a graphical summary of all employees' salaries. The graphical summary of salaries is an example of \_\_\_\_\_ statistics.

|  |  |  |
| --- | --- | --- |
|   | a.  | inferential |
|   | b.  | descriptive |
|   | c.  | experimental |
|   | d.  | observational |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.04 - Descriptive Statistics |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: Descriptive Statistics |
| *KEYWORDS:* | Bloom's: Understand |
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| 43. The Department of Transportation of a city has calculated that on the average there are 17 accidents per day. The average number of accidents is an example of

|  |  |  |
| --- | --- | --- |
|   | a.  | descriptive statistics. |
|   | b.  | statistical inference. |
|   | c.  | a sample. |
|   | d.  | a population. |

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| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.04 - Descriptive Statistics |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: Descriptive Statistics |
| *KEYWORDS:* | Bloom's: Understand |
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| 44. The process of analyzing sample data in order to draw conclusions about the characteristics of a population is called

|  |  |  |
| --- | --- | --- |
|   | a.  | descriptive statistics. |
|   | b.  | statistical inference. |
|   | c.  | data analysis. |
|   | d.  | data summarization. |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.05 - Statistical Inference |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: Statistical Inference |
| *KEYWORDS:* | Bloom's: Remember |
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| 45. In a post office, the mailboxes are numbered from 1 to 4,500. These numbers represent

|  |  |  |
| --- | --- | --- |
|   | a.  | categorical data. |
|   | b.  | quantitative data. |
|   | c.  | either categorical or quantitative data. |
|   | d.  | since the numbers are sequential, the data is quantitative. |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Understand |
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| 46. The average age in a sample of 190 students at City College is 22. As a result of this sample, it can be concluded that the average age of all the students at City College

|  |  |  |
| --- | --- | --- |
|   | a.  | must be more than 22, since the population is always larger than the sample. |
|   | b.  | must be less than 22, since the sample is only a part of the population. |
|   | c.  | could not be 22. |
|   | d.  | is around 22. |

|  |  |
| --- | --- |
| *ANSWER:* | d |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.05 - Statistical Inference |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: Statistical Inference |
| *KEYWORDS:* | Bloom's: Understand |
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| 47. Since a sample is a subset of the population, the sample mean \_\_\_\_\_ the mean of the population.

|  |  |  |
| --- | --- | --- |
|   | a.  | is always smaller than |
|   | b.  | is always larger than |
|   | c.  | must be equal to |
|   | d.  | varies around |

|  |  |
| --- | --- |
| *ANSWER:* | d |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.05 - Statistical Inference |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: Statistical Inference |
| *KEYWORDS:* | Bloom's: Understand |
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| 48. The scale of measurement used for variable data that is simply a label for the purpose of identifying the attribute of an element is the \_\_\_\_\_ scale.

|  |  |  |
| --- | --- | --- |
|   | a.  | ratio |
|   | b.  | nominal |
|   | c.  | ordinal |
|   | d.  | interval |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Understand |
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| 49. In a data set, the number of elements will always be the same as the number of

|  |  |  |
| --- | --- | --- |
|   | a.  | independent variables. |
|   | b.  | observations. |
|   | c.  | data points. |
|   | d.  | dependent variables. |

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| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Understand |
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| 50. Which of the following is ***not*** a scale of measurement?

|  |  |  |
| --- | --- | --- |
|   | a.  | Nominal |
|   | b.  | Ordinal |
|   | c.  | Interval |
|   | d.  | Observational |

|  |  |
| --- | --- |
| *ANSWER:* | d |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Understand |
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| 51. Which of the following is a scale of measurement?

|  |  |  |
| --- | --- | --- |
|   | a.  | Ratio |
|   | b.  | Proportion |
|   | c.  | Sample |
|   | d.  | Inferential |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Understand |
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| 52. Which scale of measurement can be either numeric or non-numeric?

|  |  |  |
| --- | --- | --- |
|   | a.  | Nominal |
|   | b.  | Ratio |
|   | c.  | Interval |
|   | d.  | Quantitative |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Understand |
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| 53. Which of the following variables use the ratio scale of measurement?

|  |  |  |
| --- | --- | --- |
|   | a.  | Driver's license number |
|   | b.  | Temperature |
|   | c.  | Gender |
|   | d.  | Weight |

|  |  |
| --- | --- |
| *ANSWER:* | d |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Understand |
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| 54. The numbers on football jerseys are an example of \_\_\_\_\_ data.

|  |  |  |
| --- | --- | --- |
|   | a.  | categorical |
|   | b.  | either categorical or quantitative |
|   | c.  | neither categorical or quantitative |
|   | d.  | quantitative |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Understand |
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| 55. The height of a building, measured in feet, is an example of \_\_\_\_\_ data.

|  |  |  |
| --- | --- | --- |
|   | a.  | categorical |
|   | b.  | either categorical or quantitative |
|   | c.  | neither categorical or quantitative |
|   | d.  | quantitative |

|  |  |
| --- | --- |
| *ANSWER:* | d |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Understand |
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| 56. An interviewer has made an error in recording the data. This type of error is known as a(n) \_\_\_\_\_ error.

|  |  |  |
| --- | --- | --- |
|   | a.  | experimental |
|   | b.  | data acquisition |
|   | c.  | non-experimental |
|   | d.  | conglomerate |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.03 - Data Sources |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Understand |
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| 57. Census refers to a(n)

|  |  |  |
| --- | --- | --- |
|   | a.  | experimental study to collect data on the entire population. |
|   | b.  | experimental study to collect data on a sample. |
|   | c.  | survey to collect data on a sample. |
|   | d.  | survey to collect data on the entire population. |

|  |  |
| --- | --- |
| *ANSWER:* | d |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.05 - Statistical Inference |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: Statistical Inference |
| *KEYWORDS:* | Bloom's: Remember |
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| 58. In experimental studies, the variable of interest

|  |  |  |
| --- | --- | --- |
|   | a.  | is not controlled. |
|   | b.  | is controlled. |
|   | c.  | must be numerical. |
|   | d.  | cannot be numerical. |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.03 - Data Sources |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Understand |
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| 59. In observational studies, the variable of interest

|  |  |  |
| --- | --- | --- |
|   | a.  | is not controlled. |
|   | b.  | is controlled. |
|   | c.  | must be numerical. |
|   | d.  | cannot be numerical. |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.03 - Data Sources |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Understand |
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| 60. How many scales of measurement exist?

|  |  |  |
| --- | --- | --- |
|   | a.  | 2 |
|   | b.  | 4 |
|   | c.  | 6 |
|   | d.  | 8 |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Remember |
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| 61. Which of the following scales of measurement are appropriate for quantitative data?

|  |  |  |
| --- | --- | --- |
|   | a.  | Interval and ordinal |
|   | b.  | Ratio and ordinal |
|   | c.  | Nominal and ordinal |
|   | d.  | Interval and ratio |

|  |  |
| --- | --- |
| *ANSWER:* | d |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Understand |
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| 62. The sample size

|  |  |  |
| --- | --- | --- |
|   | a.  | can be larger than the population size. |
|   | b.  | is always smaller than the population size. |
|   | c.  | can be larger or smaller than the population size. |
|   | d.  | is always equal to the size of the population. |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.05 - Statistical Inference |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: Statistical Inference |
| *KEYWORDS:* | Bloom's: Understand |
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| 63. A population is

|  |  |  |
| --- | --- | --- |
|   | a.  | the same as a sample. |
|   | b.  | the selection of a random sample. |
|   | c.  | the collection of all items of interest in a study. |
|   | d.  | always the same size as the sample. |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.05 - Statistical Inference |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: Statistical Inference |
| *KEYWORDS:* | Bloom's: Understand |
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| 64. In a random sample of 200 items, 5 items were defective. An estimate of the percentage of defective items in the population is

|  |  |  |
| --- | --- | --- |
|   | a.  | 5%. |
|   | b.  | 2.5%. |
|   | c.  | 20%. |
|   | d.  | 10%. |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.05 - Statistical Inference |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: Statistical Inference |
| *KEYWORDS:* | Bloom's: Apply |
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| 65. On a street, the houses are numbered from 300 to 450. The house numbers are examples of \_\_\_\_\_ data.

|  |  |  |
| --- | --- | --- |
|   | a.  | categorical |
|   | b.  | quantitative |
|   | c.  | both quantitative and categorical |
|   | d.  | neither quantitative nor categorical |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Understand |
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| 66. A survey to collect data on the entire population is a(n)

|  |  |  |
| --- | --- | --- |
|   | a.  | census. |
|   | b.  | sample. |
|   | c.  | population. |
|   | d.  | inference. |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.05 - Statistical Inference |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: Statistical Inference |
| *KEYWORDS:* | Bloom's: Remember |
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| 67. In a sample of 1,600 registered voters, 912 or 57%  approve of the way the President is doing his job. The 57% approval is an example of

|  |  |  |
| --- | --- | --- |
|   | a.  | a sample. |
|   | b.  | descriptive statistics. |
|   | c.  | statistical inference. |
|   | d.  | a population. |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.04 - Descriptive Statistics |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: Descriptive Statistics |
| *KEYWORDS:* | Bloom's: Understand |
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| 68. In a sample of 1,600 registered voters, 912 or 57% approve of the way the President is doing his job. A political pollster estimates: "Fifty-seven percent of all voters approve of the President." This statement is an example of

|  |  |  |
| --- | --- | --- |
|   | a.  | a sample. |
|   | b.  | descriptive statistics. |
|   | c.  | statistical inference. |
|   | d.  | a population. |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.05 - Statistical Inference |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: Statistical Inference |
| *KEYWORDS:* | Bloom's: Understand |
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| 69. The type of analytics whose models yield a best course of action to take is \_\_\_\_\_ analytics.

|  |  |  |
| --- | --- | --- |
|   | a.  | descriptive  |
|   | b.  | prescriptive |
|   | c.  | predictive |
|   | d.  | inferential |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.07 - Big Data and Data Mining |
| *NATIONAL STANDARDS:* | United States - BUSPROG:Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Remember |
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| 70. Data dash-board is an analytical technique that falls in the category of \_\_\_\_\_ analytics.

|  |  |  |
| --- | --- | --- |
|   | a.  | prescriptive |
|   | b.  | predictive |
|   | c.  | descriptive |
|   | d.  | diagnostic |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.06 - Analytics |
| *NATIONAL STANDARDS:* | United States - BUSPROG:Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Remember |
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| 71. Optimization models, which generate solutions that maximize or minimize some objective subject to a set of constraints, fall into the category of \_\_\_\_\_ analytics.

|  |  |  |
| --- | --- | --- |
|   | a.  | prescriptive |
|   | b.  | predictive |
|   | c.  | descriptive |
|   | d.  | diagnostic |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.06 - Analytics |
| *NATIONAL STANDARDS:* | United States - BUSPROG:Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Understand |
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| 72. Simulation, which is the use of probability and statistical computer models to better understand risk, falls under the category of \_\_\_\_\_ analytics.

|  |  |  |
| --- | --- | --- |
|   | a.  | prescriptive |
|   | b.  | predictive |
|   | c.  | descriptive |
|   | d.  | diagnostic |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.06 - Analytics |
| *NATIONAL STANDARDS:* | United States - BUSPROG:Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Understand |
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| 73. The set of analytical techniques that yield a best course of action is \_\_\_\_\_ analytics.

|  |  |  |
| --- | --- | --- |
|   | a.  | prescriptive |
|   | b.  | predictive |
|   | c.  | descriptive |
|   | d.  | diagnostic |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG:Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Understand |
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| 74. Analytics is generally thought to comprise three broad categories of techniques that include all of the following except \_\_\_\_\_ analytics.

|  |  |  |
| --- | --- | --- |
|   | a.  | prescriptive |
|   | b.  | predictive |
|   | c.  | descriptive |
|   | d.  | diagnostic |

|  |  |
| --- | --- |
| *ANSWER:* | d |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG:Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Remember |
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| 75. The largest experimental statistical study ever conducted is believed to be for​

|  |  |  |
| --- | --- | --- |
|   | a.  | ​Cholera. |
|   | b.  | ​Polio. |
|   | c.  | ​Diphtheria. |
|   | d.  | ​Malaria. |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.03 - Data Sources |
| *NATIONAL STANDARDS:* | United States - BUSPROG:Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Remember |
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| 76. Which of the following is a categorical variable?

|  |  |  |
| --- | --- | --- |
|   | a.  | Your age when you began college |
|   | b.  | Your Social Security Number |
|   | c.  | Your statistics class start time |
|   | d.  | Your birth year |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG:Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
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| 77. The major applications of data mining have been made by companies with a strong \_\_\_\_\_\_\_ focus.​

|  |  |  |
| --- | --- | --- |
|   | a.  | ​wholesale |
|   | b.  | ​manufacturing |
|   | c.  | consumer |
|   | d.  | ​research and development |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.07 - Big Data and Data Mining |
| *NATIONAL STANDARDS:* | United States - BUSPROG:Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Understand |
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| 78. Dr. Kurt Thearling, a leading practitioner in the field, defines data mining as “the \_\_\_\_\_ extraction of \_\_\_\_\_ information from databases.”

|  |  |  |
| --- | --- | --- |
|   | a.  | thorough, insightful |
|   | b.  | timely, accurate |
|   | c.  | automated, predictive |
|   | d.  | intentional, useful |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.07 - Big Data and Data Mining |
| *NATIONAL STANDARDS:* | United States - BUSPROG:Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Remember |
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| 79. Which of the following is not an example of a firm that sells or leases business database services to clients?

|  |  |  |
| --- | --- | --- |
|   | a.  | ​Dun & Bradstreet |
|   | b.  | ​Bloomberg |
|   | c.  | ​Census Bureau |
|   | d.  | ​Dow Jones & Co. |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.03 - Data Sources |
| *NATIONAL STANDARDS:* | United States - BUSPROG: o Reflective Thinking - BUSPROG: Analytic skills: Statistics and Management Science |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Remember |
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| 80. Which of the following variables uses the interval scale of measurement?​

|  |  |  |
| --- | --- | --- |
|   | a.  | ​Standardized test score |
|   | b.  | ​Time duration |
|   | c.  | ​Student ID number |
|   | d.  | ​Vehicle miles-per-gallon |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: o Reflective Thinking - BUSPROG: Analytic skills: Statistics and Management Science |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Understand |
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| 81. The number observations in a complete data set having 15 elements and 5 variables is

|  |  |  |
| --- | --- | --- |
|   | a.  | 5. |
|   | b.  | 10. |
|   | c.  | 15. |
|   | d.  | 75. |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG:Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
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| 82. ​Which of the following is not an example of descriptive statistics?

|  |  |  |
| --- | --- | --- |
|   | a.  | ​A histogram depicting the age distribution for 30 randomly selected students |
|   | b.  | ​An estimate of the number of Alaska residents who have visited Canada |
|   | c.  | ​A table summarizing the data collected in a sample of new-car buyers |
|   | d.  | ​The proportion of mailed-out questionnaires that were returned |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.04 - Descriptive Statistics |
| *NATIONAL STANDARDS:* | United States - BUSPROG:Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: Descriptive Statistics |
| *KEYWORDS:* | Bloom's: Understand |
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| 83. ​Facts and figures that are collected, analyzed and summarized for presentation and interpretation are

|  |  |  |
| --- | --- | --- |
|   | a.  | ​variables. |
|   | b.  | ​elements. |
|   | c.  | ​time series data. |
|   | d.  | ​data. |

|  |  |
| --- | --- |
| *ANSWER:* | d |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG:Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Remember |
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| 84. The most common type of observational study is a(n)

|  |  |  |
| --- | --- | --- |
|   | a.  | experiment. |
|   | b.  | survey. |
|   | c.  | debate. |
|   | d.  | statistical inference. |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.03 - Data Sources |
| *NATIONAL STANDARDS:* | United States - BUSPROG:Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Remember |
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| --- |
| Subjective Short Answer |

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| 85. After graduation ceremonies at a university, six graduates were asked whether they were in favor of (identified by 1) or against (identified by 0) abortion. Some information about these graduates is shown below.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Graduate** | **Sex** | **Age** | **Abortion Issue** | **Class Rank** |
| Marissa | F | 24 | 1 | 1 |
| Jason | M | 22 | 1 | 2 |
| Wendy | F | 41 | 0 | 3 |
| Edward | M | 38 | 0 | 20 |
| Jennifer | F | 25 | 1 | 4 |
| Tim | M | 19 | 0 | 8 |

​

|  |  |
| --- | --- |
| a. | How many elements are in the data set? |
| b. | How many variables are in the data set? |
| c. | How many observations are in the data set? |
| d. | Which of the above variables (Sex, Age, Abortion Issue, Class rank) are categorical and which are quantitative variables? |
| e. | Are arithmetic operations appropriate for the variable "abortion issue"? |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *ANSWER:* |

|  |  |
| --- | --- |
| a. | 6 |
| b. | 4 |
| c. | 6 |
| d. | Sex: categorical |
|   | Age: quantitative |
|   | Abortion Issue: categorical |
|   | Class Rank: categorical |
| e. | No |

 |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Moderate |
| *QUESTION TYPE:* | Subjective Short Answer |
| *HAS VARIABLES:* | False |
| *STUDENT ENTRY MODE:* | Basic |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Understand |
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| 86. A recent issue of Fortune Magazine reported that the following companies had the lowest sales per employee among the Fortune 500 companies.

|  |  |  |
| --- | --- | --- |
|   | **Sales per Employee(In $1,000s)** | **SalesRank** |
| **Company** |
| Seagate Technology | 42.20 | 285 |
| SSMC | 42.19 | 414 |
| Russel | 41.99 | 480 |
| Maxxam | 40.88 | 485 |
| Dibrell Brothers | 22.56 | 470 |

​

|  |  |
| --- | --- |
| a. | How many elements are in the above data set? |
| b. | How many variables are in the above data set? |
| c. | How many observations are in the above data set? |
| d. | Name the variables and indicate whether they are categorical or quantitative. |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *ANSWER:* |

|  |  |
| --- | --- |
| a. | 5 |
| b. | 2 |
| c. | 5 |
| d. | Sales per employee: quantitative; Sales rank: categorical |

 |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Moderate |
| *QUESTION TYPE:* | Subjective Short Answer |
| *HAS VARIABLES:* | False |
| *STUDENT ENTRY MODE:* | Basic |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Understand |
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| 87. The following shows the temperatures (high, low) and weather conditions on a given Sunday for some selected world cities. For the weather conditions, the following notations are used: c = clear; cl = cloudy; sh = showers; pc = partly cloudy.

|  |  |  |  |
| --- | --- | --- | --- |
| **City** | **Hi** | **Lo** | **Condition** |
| Acapulco | 99 | 77 | pc |
| Bangkok | 92 | 78 | pc |
| Mexico City | 77 | 57 | sh |
| Montreal | 72 | 56 | pc |
| Paris | 77 | 58 | c |
| Rome | 88 | 68 | cl |
| Toronto | 78 | 61 | c |

​

|  |  |
| --- | --- |
| a. | How many elements are in this data set? |
| b. | How many variables are in this data set? |
| c. | How many observations are in this data set? |
| d. | Name the variables and indicate whether they are categorical or quantitative. |
| e. | For which variables are arithmetic operations appropriate and for which are they not appropriate? |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *ANSWER:* |

|  |  |
| --- | --- |
| a. | 7 |
| b. | 3 |
| c. | 7 |
| d. | Hi: quantitative, Lo: quantitative, Condition: categorical |
| e. | Hi: appropriate, Lo: appropriate, Condition: not appropriate |

 |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Moderate |
| *QUESTION TYPE:* | Subjective Short Answer |
| *HAS VARIABLES:* | False |
| *STUDENT ENTRY MODE:* | Basic |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Understand |
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| 88. The following data shows the yearly income distribution of a sample of 200 employees at MNM, Inc.

|  |  |
| --- | --- |
| **Yearly Income(In $1,000s)** | **Numberof Employees** |
| 20 - 24 | 2 |
| 25 - 29 | 48 |
| 30 - 34 | 60 |
| 35 - 39 | 80 |
| 40 - 44 | 10 |

​

|  |  |
| --- | --- |
| a. | What percentage of employees have yearly incomes of $35,000 or more? |
| b. |  Does the figure computed in part a exemplify statistical inference? If no, what kind of statistical information does it represent? |
| c. | Based on this sample, the president of the company said that "45% of all our employees' yearly incomes are $35,000 or more." What kind of statistical information does the president's statement represent? |
| d. | With the statement made in Part c, can we be assured that more than 45% of all employees' yearly incomes are at least $35,000? Explain. |
| e. | What percentage of employees of the sample have yearly incomes of $29,000 or less? |
| f. | How many variables are presented in the above data set? |
| g. | How many observation results are represented in the above data set? |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| *ANSWER:* |

|  |  |
| --- | --- |
| a. | 45% |
| b. | No, it is descriptive statistics. |
| c. | statistical inference |
| d. | No, this is simply an inference and approximation based on the sample information. |
| e. | 25% |
| f. | 2 |
| g. | 200 |

 |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Challenging |
| *QUESTION TYPE:* | Subjective Short Answer |
| *HAS VARIABLES:* | False |
| *STUDENT ENTRY MODE:* | Basic |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - DataBSST.ASWC.20.01.04 - Descriptive StatisticsBSST.ASWC.20.01.05 - Statistical Inference |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: Descriptive StatisticsUnited States - AK - DISC: IMA: ReportingUnited States - AK - DISC: Statistical Inference |
| *KEYWORDS:* | Bloom's: Apply | Bloom's: Understand |
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| 89. A recent issue of a national magazine reported that in a national public opinion survey conducted among 2,000 individuals, 56% were in favor of gun control, 40% opposed gun control, and 4% had no opinion on the subject.

|  |  |
| --- | --- |
| a. | What is the sample in this survey? |
| b. | Based on the sample, what percentage of the population would you think is in favor of gun control? |
| c. | Based on the sample, what percentage of the population would you think have no opinion on the subject? |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| *ANSWER:* |

|  |  |
| --- | --- |
| a. | The 2000 individuals who were approached |
| b. | 56% |
| c. | 4% |

 |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Subjective Short Answer |
| *HAS VARIABLES:* | False |
| *STUDENT ENTRY MODE:* | Basic |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.05 - Statistical Inference |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: Statistical Inference |
| *KEYWORDS:* | Bloom's: Understand |
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| 90. The following table shows the starting salaries of a sample of recent business graduates.

|  |  |
| --- | --- |
| **Income (In $1,000s)** | **Number of Graduates** |
| 15 - 19 | 40 |
| 20 - 24 | 60 |
| 25 - 29 | 80 |
| 30 - 34 | 18 |
| 35 - 39 | 2 |

​

|  |  |
| --- | --- |
| a. | What percentage of graduates in the sample had starting salaries of at least $25,000? |
| b. | Of the graduates in the sample, what percentage had starting salaries of less than $20,000? |
| c. | Based on this sample, what percentage of all business graduates do you estimate to have starting salaries of at least $30,000? |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| *ANSWER:* | ​

|  |  |
| --- | --- |
| a. | 50% |
| b. | 20% |
| c. | 10% |

 |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Moderate |
| *QUESTION TYPE:* | Subjective Short Answer |
| *HAS VARIABLES:* | False |
| *STUDENT ENTRY MODE:* | Basic |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.05 - Statistical Inference |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Apply |
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| 91. Michael, Inc., a manufacturer of electric guitars, is a small firm with 50 employees. The table below shows the hourly wage distribution of the employees.

|  |  |
| --- | --- |
| **Hourly Wages (In Dollars)** | **Number of Employees** |
| 10 - 13 | 8 |
| 14 - 17 | 12 |
| 18 - 21 | 20 |
| 22 - 25 | 10 |

​

|  |  |
| --- | --- |
| a. | How many employees receive hourly wages of at most $18? |
| b. | What percentage of the employees have hourly wages of at least $22? |
| c. | What percentage of the employees have hourly wages of less than $14? |

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| --- | --- | --- | --- | --- | --- | --- | --- |
| *ANSWER:* | ​

|  |  |
| --- | --- |
| a. | 20 |
| b. | 20% |
| c. | 16% |

 |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Moderate |
| *QUESTION TYPE:* | Subjective Short Answer |
| *HAS VARIABLES:* | False |
| *STUDENT ENTRY MODE:* | Basic |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.04 - Descriptive Statistics |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: Descriptive Statistics |
| *KEYWORDS:* | Bloom's: Apply |
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| 92. The following information regarding the top eight Fortune 500 companies was presented in an issue of *Fortune Magazine*.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|   | **Sales****$ Millions** | **SalesRank** | **Profit$ Millions** | **ProfitRank** |
| **Company** |
| General Motors | 161,315 | 1 | 2,956 | 30 |
| Ford Motor | 144,416 | 2 | 22,071 | 2 |
| Wal-Mart Stores | 139,208 | 3 | 4,430 | 14 |
| Exxon | 100,697 | 4 | 6,370 | 5 |
| General Electric | 100,469 | 5 | 9,269 | 3 |
| Int'l Business Machines | 81,667 | 6 | 6,328 | 6 |
| Citigroup | 76,431 | 7 | 5,807 | 8 |
| Philip Morris | 57,813 | 8 | 5,372 | 9 |
| Boeing | 56,154 | 9 | 1,120 | 82 |
| AT&T | 53,588 | 10 | 6,398 | 4 |

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| a. | How many elements are in the above data set? |
| b. | How many variables are in this data set? |
| c. | How many observations are in this data set? |
| d. | Which variables are categorical and which are quantitative variables? |
| e. | What measurement scale is used for each variable? |

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| *ANSWER:* |

|  |  |
| --- | --- |
| a. | 10 |
| b. | 4 |
| c. | 10 |
| d. | Sales and Profits are quantitative |
|   | Sales Rank, and Profits Rank are categorical |
| e. | Sales: ratio |
|   | Sales Rank: ordinal |
|   | Profits: ratio |
|   | Profits Rank: ordinal |

 |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Moderate |
| *QUESTION TYPE:* | Subjective Short Answer |
| *HAS VARIABLES:* | False |
| *STUDENT ENTRY MODE:* | Basic |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Understand |
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| 93. The following information regarding a sample of seven students is provided.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ​**Student** | **Identification Number** | **Grade Point Average** | ​**Classification** | ​**Gender** | **Rank in Class** |
| Adam | 1234 | 2.89 | Senior | Male | 15 |
| Brandon | 8978 | 2.01 | Junior | Male | 25 |
| Jason | 6578 | 3.97 | Freshman | Male | 3 |
| Marissa | 2345 | 3.98 | Sophomore | Female | 2 |
| Michelle | 8901 | 2.67 | Senior | Female | 18 |
| Wendy | 7789 | 4.00 | Senior | Female | 1 |
| Webster | 6780 | 3.77 | Freshman | Male | 4 |

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| a. | How many elements are in the above data set? |
| b. | How many variables are in this data set? |
| c. | How many observations are in this data set? |
| d. | Which variables are categorical and which are quantitative variables? |
| e. | What measurement scale is used for each variable? |

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| *ANSWER:* |

|  |  |
| --- | --- |
| a. | 7 |
| b. | 5 |
| c. | 7 |
| d. | Grade point average is quantitative. All others are categorical. |
| e. | Identification Number: nominal |
|   | Grade Point Average: ratio |   |
|   | Classification: ordinal |
|   | Gender: nominal |
|   | Rank in Class: ordinal |

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| *POINTS:* | 1 |
| *DIFFICULTY:* | Moderate |
| *QUESTION TYPE:* | Subjective Short Answer |
| *HAS VARIABLES:* | False |
| *STUDENT ENTRY MODE:* | Basic |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Understand |
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| 94. The following information regarding the ten richest Americans was reported in a recent issue of *Forbes*.​

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Name** | **Ranking** | **Worth($Billions)** | **Age** | **Marital Status** | **Source** |
| Gates, William | 1 | 59.0 | 51 | married | Microsoft |
| Buffett, Warren | 2 | 52.0 | 77 | married | Berkshire Hathaway |
| Adelson, Sheldon | 3 | 28.0 | 74 | married | casinos, hotels |
| Ellison, L. J. | 4 | 26.0 | 63 | married | Oracle |
| Brin, Sergey | 5 | 18.5 | 34 | married | Google |
| Page, Larry | 5 | 18.5 | 34 | single | Google |
| Kerkorian, Kirk | 7 | 18.0 | 90 | divorced | investments, casinos |
| Dell, Michael | 8 | 17.2 | 42 | married | Dell |
| Koch, Charles | 9 | 17.0 | 71 | married | oil, commodities |
| Koch, David | 9 | 17.0 | 67 | married | oil, commodities |

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| a. | How many elements are in the above data set? |
| b. | How many variables are in this data set? |
| c. | How many observations are in this data set? |
| d. | Which variables are categorical and which are quantitative? |
| e. | What measurement scale is used for each variable? |

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| *ANSWER:* |

|  |  |
| --- | --- |
| a. | 10 |
| b. | 5 |
| c. | 10 |
| d. | Worth and Age are quantitative |
|   | Ranking, Marital Status, and Source are categorical |
| e. | Ranking: ordinal |
|   | Worth: ratio |   |
|   | Age: ratio |
|   | Marital Status: nominal |
|   | Source: nominal |

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| *POINTS:* | 1 |
| *DIFFICULTY:* | Moderate |
| *QUESTION TYPE:* | Subjective Short Answer |
| *HAS VARIABLES:* | False |
| *STUDENT ENTRY MODE:* | Basic |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Understand |
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| 95. The following national weather report gives the temperatures and weather conditions on the previous day in cities across the nation.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|   | City | Hi | Lo | Condition |
|   | Albany, N.Y. | 88 | 60 | cloudy |
|   | Chicago | 92 | 64 | clear |
|   | Dallas-Ft.Worth | 89 | 72 | cloudy |
|   | Denver | 75 | 54 | clear |
|   | Hartford | 88 | 61 | cloudy |
|   | Honolulu | 86 | 70 | clear |
|   | Kansas City | 93 | 74 | clear |
|   | Los Angeles | 80 | 62 | cloudy |
|   | Nashville | 94 | 72 | rain |
|   | New York City | 90 | 69 | rain |
|   | Philadelphia | 90 | 67 | rain |

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| a. | How many elements are in this data set? |
| b. | How many variables are in this data set? |
| c. | How many observations are there in the above data set? |
| d. | Which variables are categorical and which are quantitative? |
| e. | What measurement scale is used for temperature and weather conditions? |

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| *ANSWER:* |

|  |  |
| --- | --- |
| a. | 11 |
| b. | 3 |
| c. | 11 |
| d. | Temperature is quantitative |
|   | Weather Condition is categorical |
| e. | Temperature (Hi and Lo): interval |
|   | Weather Condition: nominal |

 |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Moderate |
| *QUESTION TYPE:* | Subjective Short Answer |
| *HAS VARIABLES:* | False |
| *STUDENT ENTRY MODE:* | Basic |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - Data |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: Reporting |
| *KEYWORDS:* | Bloom's: Understand |
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| 96. The following table shows the age distribution of a sample of 180 students at a local college.​

|  |  |  |
| --- | --- | --- |
|   | **Age of Students** | **Number of Students** |
|   | 15 - 19 |   36 |
|   | 20 - 24 |   44 |
|   | 25 - 29 |   60 |
|   | 30 - 34  |   38 |
|   | 35 - 39 |     2 |
|   |  Total   | 180 |

​

|  |  |
| --- | --- |
| a. | Of the students in the sample, what percentage is younger than 30 years of age? |
| b. | What percentage is at least 20 years of age? |
| c. | Based on this sample, what percentage of the students at the college do you estimate to be younger than 20 years of age? |

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| --- | --- | --- | --- | --- | --- | --- | --- |
| *ANSWER:* |

|  |  |
| --- | --- |
| a. | 77.78% |
| b. | 80% |
| c. | 20% |

​ |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Moderate |
| *QUESTION TYPE:* | Subjective Short Answer |
| *HAS VARIABLES:* | False |
| *STUDENT ENTRY MODE:* | Basic |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.05 - Statistical Inference |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: Statistical Inference |
| *KEYWORDS:* | Bloom's: Apply |
| *DATE CREATED:* | 9/26/2018 11:22 AM |
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| 97. The highway patrol is interested in determining the average speed of automobiles traveling on I-75 between Chattanooga and Atlanta. To accomplish this task, the speed of every tenth car passing a particular point on I-75 is recorded.

|  |  |
| --- | --- |
| a. | What is the population for this study? |
| b. | What constitutes the sample? |
| c. | Is speed a categorical or a quantitative variable? |
| d. | What type of measurement scale is used? |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *ANSWER:* |

|  |  |
| --- | --- |
| a. | All the automobiles on I-75 |
| b. | All the tenth cars |
| c. | quantitative |
| d. | ratio |

 |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Moderate |
| *QUESTION TYPE:* | Subjective Short Answer |
| *HAS VARIABLES:* | False |
| *STUDENT ENTRY MODE:* | Basic |
| *LEARNING OBJECTIVES:* | BSST.ASWC.20.01.02 - DataBSST.ASWC.20.01.05 - Statistical Inference |
| *NATIONAL STANDARDS:* | United States - BUSPROG: Analytic |
| *STATE STANDARDS:* | United States - AK - DISC: IMA: ReportingUnited States - AK - DISC: Statistical Inference |
| *KEYWORDS:* | Bloom's: Understand |
| *DATE CREATED:* | 9/26/2018 11:22 AM |
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