## AS2(Assignment 2, Unit 1): Data Organization

# Please highlight the correct answer choice like this: a

1. A sample of n = 50 scores ranges from a high of X = 16 to a low of X = 8. If these scores are placed in a frequency distribution table, how many X values will be listed in the first column?

a. 6
b. 8
c. 9
d. 7

2. For the following frequency distribution, how many individual scores are in the entire set?

| X | f |
|---|---|
| 5 | 2 |
| 4 | 6 |
| 3 | 3 |
| 2 | 4 |

a. N = 4
b. N = 51
c. N = 14
d. N = 15

3 For the following frequency distribution, how many individuals had a score of X = 3?

| X | f |
|---|---|
| 5 | 2 |
| 4 | 4 |
| 3 | 1 |
| 2 | 3 |

a. 1
b. 2
c. 3
d. 4

4 For the following frequency distribution, what is the value of ΣX?

| X | f |
|---|---|
| 5 | 2 |
| 4 | 4 |
| 3 | 1 |
| 2 | 2 |

a. 9
b. 14
c. 33
d. 31

5. For the following frequency distribution of quiz scores, how many individuals took the quiz?

| | X | f |
|---|---|---|
| a. n = 14 | 5 | 6 |
| b. n = 19 | 4 | 5 |
| c. n = 71 | 3 | 5 |
| d. cannot be determined | 2 | 3 |

6. For the following distribution of quiz scores, if a score of X = 4 or lower is needed for a passing grade, how many individuals passed?

| | X | f |
|---|---|---|
| a. 16 | 5 | 6 |
| b. 15 | 4 | 5 |
| c. 10 | 3 | 5 |
| d. cannot be determined | 2 | 3 |
| | 1 | 2 |

7. What frequency distribution graph is appropriate for scores measured on a ratio scale?

a. only a histogram

b. only a polygon

c. either a histogram or a polygon

d. only a bar graph

8. What kind of frequency distribution graph is appropriate for representing data for eye color?

a. only a histogram

b. only a polygon

c. either a histogram or a polygon

d. only a bar graph

9. A mechanic recorded the type of vehicle for each vehicle in his car sale lot. If the data are

presented in a frequency distribution graph, what type of graph should be used?

a. bar graph

b. a histogram

c. a polygon

d. either a histogram or a polygon

10. A researcher records the number of one family homes on each block in a one mile square area of NJ. If the results are presented in a frequency distribution graph, what kind of graph should be used?

a. a bar graph

b. a histogram

c. a polygon

d. either a histogram or a polygon

11. A soccer coach recorded the time each player took to shoot a penalty kick. If the data are presented in a frequency distribution graph, what type of graph should be used?

a. bar graph

b. a histogram

c. a polygon

d. either a histogram or a polygon

12. What kind of frequency distribution graph shows the frequencies as bars that are not separated by spaces?

a. bar graph

b. a histogram

c. a polygon

d. all of the above

13.What kind of frequency distribution graph shows the frequencies as bars, with space between adjacent bars?

a. bar graph

b. a histogram

c. a polygon

d. all of the above

14. Find each value requested for the set of scores in the following frequency distribution table.

| X | f |
|---|---|

| | |
|---|---|
| 5 | 1 |
| 4 | 4 |
| 3 | 3 |
| 2 | 5 |
| 1 | 7 |

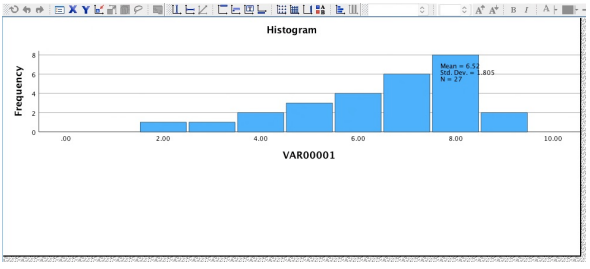
n = 20 $\Sigma X$ = 47 $(\Sigma X)^2$ = 2,209

Are the data from a sample or population? Sample

15. On SPSS, please construct a frequency table and histogram for the following data:

8, 5, 6, 4, 8, 7, 2, 8, 5, 8, 9, 7, 6, 8, 7, 7, 6, 6, 4, 3, 5, 8, 9, 7, 7, 8, 8

and paste your SPSS results here:




**Frequencies**

[DataSet0]

**Statistics**

VAR00001

| | | |
|---|---|---|
| N | Valid | 27 |
| | Missing | 0 |

**VAR00001**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 2.00 | 1 | 3.7 | 3.7 | 3.7 |
| | 3.00 | 1 | 3.7 | 3.7 | 7.4 |
| | 4.00 | 2 | 7.4 | 7.4 | 14.8 |
| | 5.00 | 3 | 11.1 | 11.1 | 25.9 |
| | 6.00 | 4 | 14.8 | 14.8 | 40.7 |
| | 7.00 | 6 | 22.2 | 22.2 | 63.0 |
| | 8.00 | 8 | 29.6 | 29.6 | 92.6 |
| | 9.00 | 2 | 7.4 | 7.4 | 100.0 |
| | Total | 27 | 100.0 | 100.0 | |

16. On SPSS: Construct a frequency table and generate the appropriate graph for the following data which represent the number of times that participants blinked in one minute:

2, 3, 1, 4, 2, 5, 3, 3, 1, 2, 2, 4, 6, 5, 5, 4, 4, 4, 2, 6, 3, 7, 2, 4, 1, 2, 5, 3,4,4,5,4,8,9,11,12

Frequencies

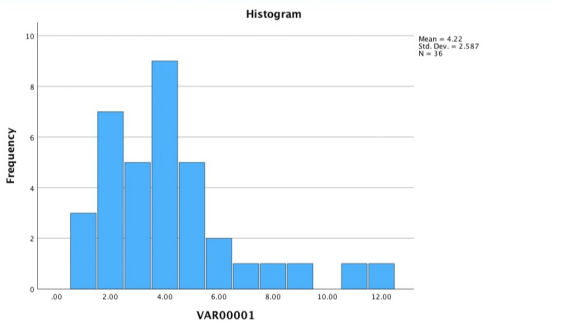
**Statistics**

VAR00001

| | | |
|---|---|---|
| N | Valid | 36 |
| | Missing | 0 |

**VAR00001**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 1.00 | 3 | 8.3 | 8.3 | 8.3 |
| | 2.00 | 7 | 19.4 | 19.4 | 27.8 |
| | 3.00 | 5 | 13.9 | 13.9 | 41.7 |
| | 4.00 | 9 | 25.0 | 25.0 | 66.7 |
| | 5.00 | 5 | 13.9 | 13.9 | 80.6 |
| | 6.00 | 2 | 5.6 | 5.6 | 86.1 |
| | 7.00 | 1 | 2.8 | 2.8 | 88.9 |
| | 8.00 | 1 | 2.8 | 2.8 | 91.7 |
| | 9.00 | 1 | 2.8 | 2.8 | 94.4 |
| | 11.00 | 1 | 2.8 | 2.8 | 97.2 |
| | 12.00 | 1 | 2.8 | 2.8 | 100.0 |
| | Total | 36 | 100.0 | 100.0 | |




17. Provide the Statistical Notation for the following (you may have to use the insert symbol option on your word menu):

Mean of a population ___μ___

Mean of a sample ___M___

Number of scores in a population ___N___

Number of scores in a sample ___n___

A raw score ___X___

Sum ___Σ___

Sum the scores ___ΣX___

Sum the scores and then square the sum ___$(\Sigma X)^2$___

Square each score and then add up the squared scores ___$\Sigma X^2$___

18. What is the *purpose* of a frequency distribution table?

A frequency distribution table is a tool used to organize and summarize large sets of data by grouping the data into classes or intervals, and then counting the number of observations that fall into each class. The table displays the frequencies of the data, allowing for easy identification of patterns and trends in the data, and is commonly used in statistics, research, and data analysis.

19. Is a frequency table a descriptive or inferential method? Descriptive

20. The following frequency distribution is from an Introduction to Psychology class quiz. Based on the data, please answer the questions below:

| X | f |
|---|---|
| 9 | 2 |
| 7 | 3 |
| 6 | 0 |
| 5 | 3 |
| 4 | 4 |

What is the range of data? 5

How many students took the quiz? 12

How many students received a score of 5? 3

How many students received a score of 4? 4

How many students got a score higher than 6? 5

How many students got a score lower than 5? 4

N = 12

$\Sigma X$ = 70