

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

Please highlight the correct answer choice like this: **a**

1. A sample of  $n = 40$  scores ranges from a high of  $X = 11$  to a low of  $X = 5$ . If these scores are placed in a frequency distribution table, how many  $X$  values will be listed in the first column?

- a. 6
- b. 7 (5-6-7-8-9-10-11)
- c. 9
- d. 20

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

	<u>X</u>	<u>f</u>
a. $N = 54$	5	2
b. $N = 12$	4	6
c. $N = 14$	3	1
d. impossible to determine	2	3

3. For the following frequency distribution, how many individuals had a score of  $X = 5$ ?

	<u>X</u>	<u>f</u>
a. 1	5	2
b. 2	4	4
c. 3	3	1
d. 4	2	3

4. For the following frequency distribution, what is the value of  $\Sigma X$ ?

	<u>X</u>	<u>f</u>	<u><math>E_x</math></u>
a. 10	5	2	10
b. 14	4	4	16
c. 25	3	1	3
d. 35	2	3	<u>6</u>
			<b>35</b>

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

	<u>X</u>	<u>f</u>
a. $n = 5$	5	6
b. $n = 15$	4	5
c. $n = 21$	3	5
d. cannot be determined	2	3
	1	2

6. For the following distribution of quiz scores, if a score of  $X = 3$  or higher is needed for a passing grade, how many individuals passed?

	<u>X</u>	<u>f</u>
a. 3	5	6
b. 11	4	5
c. 16	3	5
d. cannot be determined	2	3
	1	2

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

- 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 intersections in each city in Michigan. 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 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 no 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.

<u>X</u>	<u>f</u>
5	1
4	2
3	3
2	5
1	5

$n = 16$        $\Sigma X = 37$        $(\Sigma X)^2 = 225$

Are the data from a sample or population? **Population**

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

and paste your SPSS results here:

### Statistics

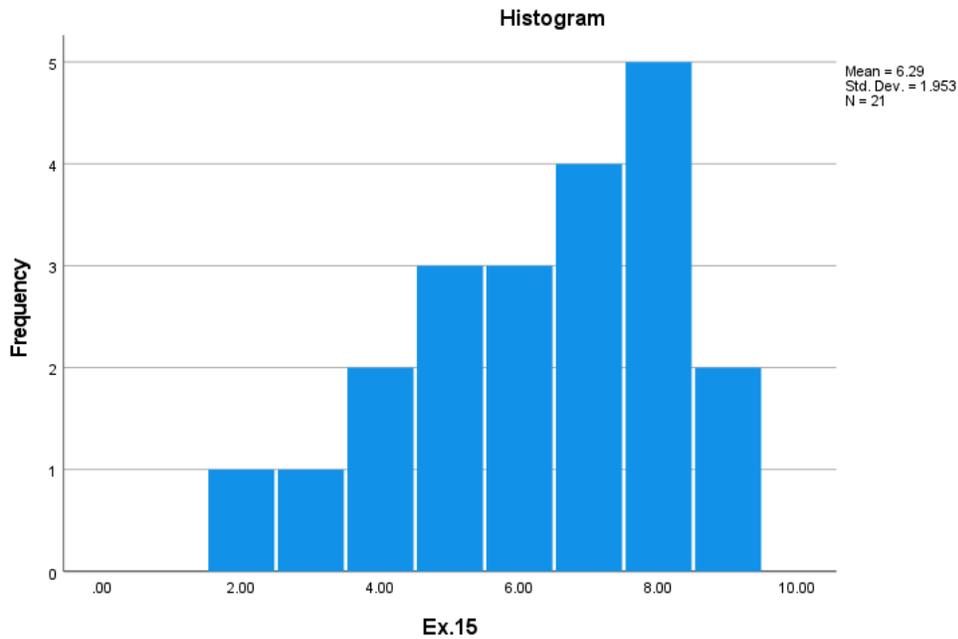
Ex.15

N	Valid	21
	Missing	0

**Ex.15**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	1	4.8	4.8	4.8
	3.00	1	4.8	4.8	9.5

4.00	2	9.5	9.5	19.0
5.00	3	14.3	14.3	33.3
6.00	3	14.3	14.3	47.6
7.00	4	19.0	19.0	66.7
8.00	5	23.8	23.8	90.5
9.00	2	9.5	9.5	100.0
Total	21	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:

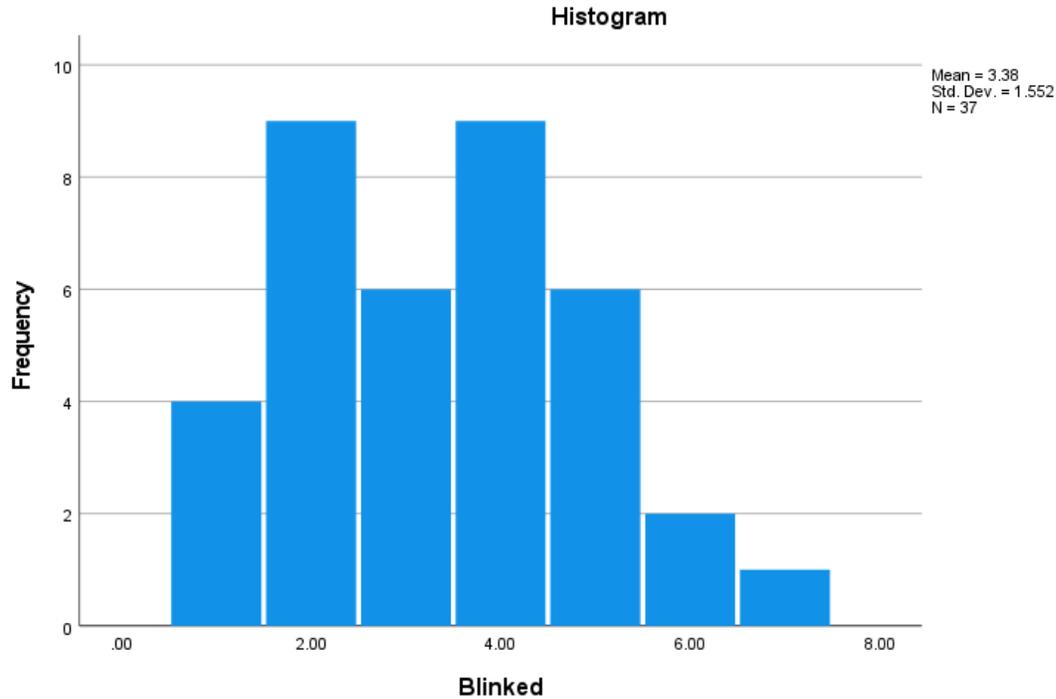
2, 3, 1, 4, 2, 5, 3, 3, 1, 2, 2, 4, 6, 5, 5, 4, 4, 4, 2, 6, 3, 7, 2, 4, 1, 2, 5, 3,4,4,5,4,5,3,2,1,2

Paste your SPSS results here:

**Statistics**

Blinked		
N	Valid	37
	Missing	0

		Blinked			Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	1.00	4	10.8	10.8	10.8
	2.00	9	24.3	24.3	35.1
	3.00	6	16.2	16.2	51.4
	4.00	9	24.3	24.3	75.7
	5.00	6	16.2	16.2	91.9
	6.00	2	5.4	5.4	97.3
	7.00	1	2.7	2.7	100.0
	Total	37	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	<u>N</u>
Number of scores in a sample	<u>n</u>
A raw score	<u>X</u>
Sum	<u><math>\Sigma</math></u>
Sum the scores	<u><math>\Sigma X</math></u>
Sum the scores and square them	<u><math>(\Sigma X)^2</math></u>
Square each score and then add up the squared scores	<u><math>\Sigma X^2</math></u>

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

To organize and summarize data  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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:

<u>X</u>	<u>f</u>
8	2
7	3
6	0
5	4
4	1
3	5

What is the range of data? 3-8

How many students took the quiz? 15

How many students received a score of 5? 4

How many students received a score of 8? 2

How many students got a score higher than 6? 5

How many students got a score lower than 5? 6

$N =$  15

$\Sigma X =$  76