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PSY330A: Statistics for Social Sciences

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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?

- 6
- **7**
- 9
- 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 ΣX ?

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

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

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?

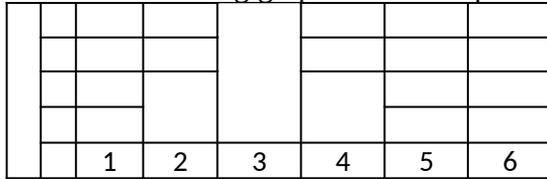
- a. bar graph
- b. a histogram
- c. a polygon

d. all of the above

13. What kind of frequency distribution graph shows the frequencies as bars, with no space between adjacent bars?

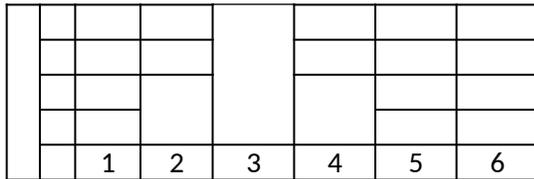
- a. bar graph
- b. a histogram**
- c. a polygon
- d. all of the above

14. The following graph is an example of a _____



- a. bar graph
- b. histogram**
- c. polygon
- d. none of the others

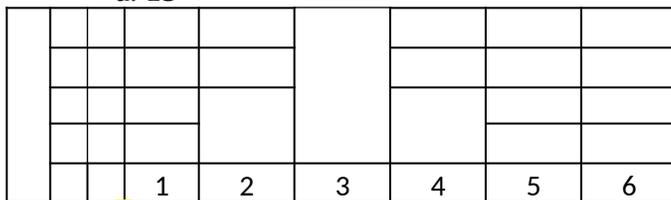
15. For the distribution in the following graphs, how many individuals had a score of $X=3$?



- a. 1
- b. 2
- c. 3**

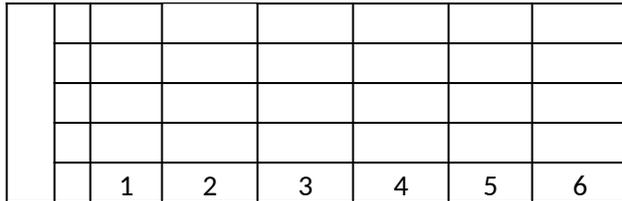
16. For the distribution in the following graph, what is the value of ΣX ?

a. 15



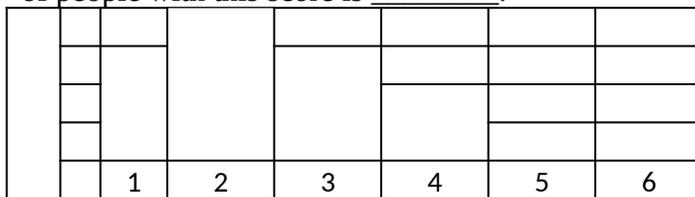
- b. 21**
- c. 30
- d. cannot determine

17. How many individual scores are in the distribution shown in the following graph?
 a. $n = 5$



- b. $n = 6$
- c. $n = 13$
- d. cannot determine

18. For the distribution in the following graph, the lowest score is $X =$ _____ and the number of people with this score is _____.



- a. 1, 1
- b. 1, 3
- c. 5, 1
- d. 2, 4

19. 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

$n = 16$ $\Sigma X = 37$ $(\Sigma X)^2 = 1,259$

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

20. 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		
VAR00001		
N	Valid	21
	Missing	0

VAR00001					
		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	

21. 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		
Blinks		
N	Valid	37
	Missing	0

Blinks					
		Frequency	Percent	Valid Percent	Cumulative 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	

22. 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 square them $(\Sigma X)^2$

Square each score and then add up the squared scores ΣX^2

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

To allow researchers to study data

24. Is a frequency table a **descriptive** or inferential method?

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

X _____ f

8	2
7	3
6	0
5	4
4	1
3	5

What is the range of data? **8 - 1**

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**