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   16-8= 8
    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   10+24+9+8=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   10+16+3+4=33
    c. 33
    d. 31

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

X	f
5	6
4	5
3	5
2	3

    a. n = 14   6+5+5+3=19
    b. n = 19
    c. n = 71
    d. cannot be determined

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	5+5+3+2= 15
	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 ΣX = 5+16+9+10= 47 $(\Sigma X)^2$ = 47x47 = 2,209

Are the data from a sample or population? Sample because of the small n
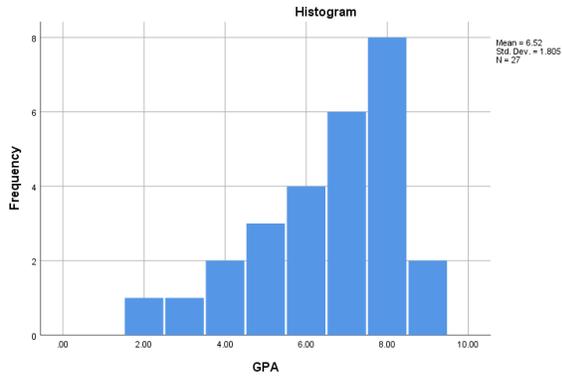
15. On SPSS, please construct a frequency table and histogram for the following data:

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:

GPA

		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

	Frequency	Percent	Valid Percent	Cumulative Percent
8.00	8	29.6	29.6	92.6
9.00	2	7.4	7.4	100.0
Total	27	100.0	100.0	

Histogram

Mean = 6.52
Std. Dev. = 1.805
N = 27

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

Blinked

		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	

Blinked

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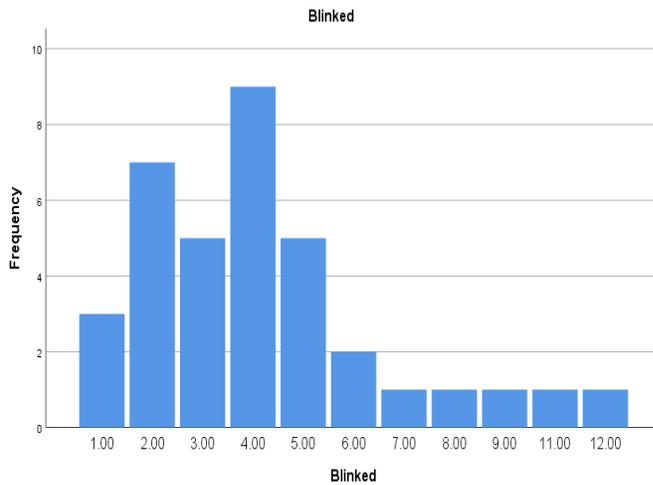
17. Provide the Statistical Notation for the following (you may have to use the insert symbol option on your word menu):

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 +

Sum the scores $\sum\times$

Sum the scores and then square the sum $(\sum\times)^2$

Square each score and then add up the squared scores. $\sum\times^2$

18. What is the *purpose* of a frequency distribution table? To organize the data that is given, so it can be easy to understand, and it will show the actual numbers on the scale of measurement.

19. Is a frequency table a descriptive or inferential method? Descriptive because frequency table focuses on visible numbers.

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? 9-4=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 = 2+3+0+3+4= 12

ΣX = 18+21+6+15+16= 76