

Statistics I
40 Questions

1. The collection of information from the **whole population**.

- | | |
|---------------------------------------|---|
| <input type="checkbox"/> A Population | <input checked="" type="radio"/> B Census |
| <input type="checkbox"/> C Sample | <input type="checkbox"/> D Survey |

2. What is the value that lies in the middle of the data when the data is ordered?

- | | |
|---|------------------------------------|
| <input checked="" type="radio"/> A Median | <input type="checkbox"/> B Mean |
| <input type="checkbox"/> C Mode | <input type="checkbox"/> D Average |

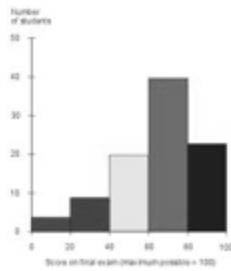
3. Which one of the following survey questions would generate categorical data?

- | | |
|--|---|
| <input type="checkbox"/> A How many times do you eat at your favorite fast-food place in a typical week? | <input type="checkbox"/> B How many items did you buy last time you went to your favourite fast food place? |
| <input checked="" type="radio"/> C Which is your favourite fast food? | <input type="checkbox"/> D How much do you usually spend buying your favourite fast food? |

4. A Quantitative **Continuous Variable** can take any numerical value within a certain **range** and is often a result of **measuring**. Which best describes continuous variables?

- | | |
|--|--|
| <input type="checkbox"/> A The number of computers in a school | <input type="checkbox"/> B How many questions are in this assignment |
| <input checked="" type="radio"/> C The distance from Salem to Portland | <input type="checkbox"/> D The number of students in a school |

5.



Describe the shape of the graph.

☐ A

Skewed right



Skewed left

☐ C

Uniform

☐ D

Symmetrical

6. A quantity calculated from the data gathered from the sample.

☐ A

Parameter

☐ B

Data



Statistics

☐ D

Census

7. This is the value that is **most frequently occurring**.

☐ A

Range

☐ B

Mean

☐ C

Median



Mode

8. The _____ of a class is the sum of the lower and upper limits of the class divided by two.

☐ A

interval



midpoint

☐ C

relative frequency

☐ D

cumulative frequency

9. Information about individuals in a population.

☐ A

Parameter



Data

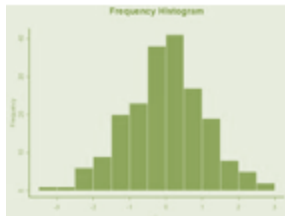
☐ C

Statistics

☐ D

Census

10.



Describe the shape of the graph.

☐ A

Skewed right

☐ B

Skewed left

☐ C

Uniform



Symmetrical

11.

When a dataset has an even number of values, the median is (جرب قبل ما تهيد)

☐ A

the same as the mean of the entire dataset.

☐ B

the mean of the highest and lowest values in the dataset.

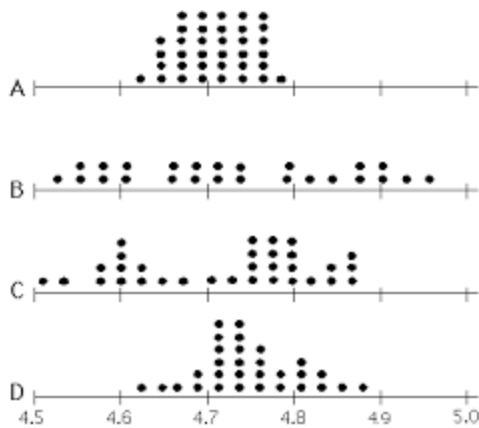
☐ C

A and B



none of them

12.



Order the dot plots from least to greatest standard deviation.



A, D, C, B

☐ B

B, C, D, A

☐ C

A, D, B, C

☐ D

B, C, A, D

13.

A defined collection of individuals or objects about which we want to draw conclusions.



Population

☐ B

Census

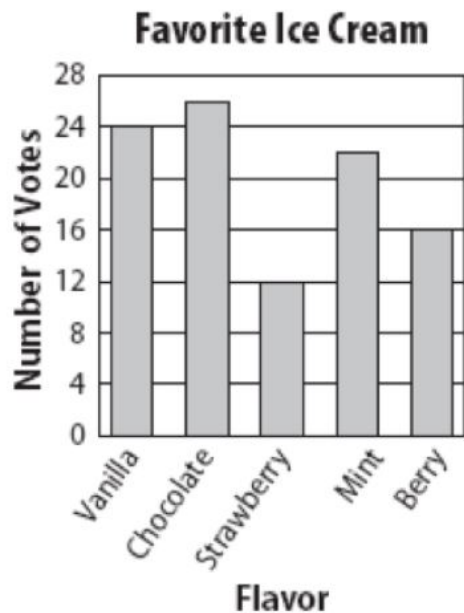
☐ C

Sample

☐ D

Survey

14.



How many total people took the survey?

- | | | | |
|------------------------------------|-----|-------------------------|-----|
| <input type="radio"/> A | 50 | <input type="radio"/> B | 150 |
| <input checked="" type="radio"/> C | 100 | <input type="radio"/> D | 200 |

15. A subset of the population which we want to collect information from. This must be random to avoid a bias result.

- | | | | |
|------------------------------------|------------|-------------------------|--------|
| <input type="radio"/> A | Population | <input type="radio"/> B | Census |
| <input checked="" type="radio"/> C | Sample | <input type="radio"/> D | Survey |

16. A **Quantitative Variable** has **numerical value**. The information collected is called what?

- | | | | |
|-------------------------|-------------|------------------------------------|----------------|
| <input type="radio"/> A | Numbers | <input checked="" type="radio"/> B | Numerical Data |
| <input type="radio"/> C | Sample Size | <input type="radio"/> D | Evidence |

17. If the mean score for two different datasets is the same, the standard deviation will necessarily be the same.

- | | | | |
|------------------------------------|------|-------------------------|-------|
| <input checked="" type="radio"/> A | true | <input type="radio"/> B | false |
|------------------------------------|------|-------------------------|-------|

18.

Stem	Leaf
8	1 4 5 6
9	3 4 7
10	0 2 3
11	0 1

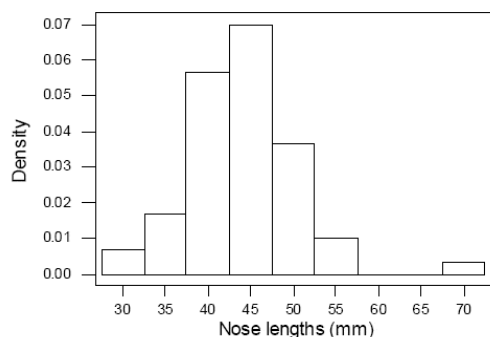
What is the highest value on this stem and leaf plot?(سیرش)

- ☐ A 11 ☐ B 1,101
- ☐ C 110 ☒ D 111

19. Which of the following is a characteristic of the range? Check all that apply.

- ☐ A All values in the distribution are used in the calculation. ☒ B It is influenced by extreme values.
- ☐ C It is dependent on the standard deviation ☐ D All of them

20.



What kind of graph is this?

- ☒ A frequency histogram ☐ B ogive
- ☐ C frequency polygon ☐ D frequency distribution

21. If an experiment is repeated correctly several times, it should yield (ع الهادي)

- ☒ A a distribution of measurements around some central value. ☐ B a single value that is obtained each and every time.
- ☐ C widely and randomly varying results. ☐ D unpredictable results.

22. Range of the data:
7,9,19,22,27,29,35.

☐ A 23

☐ B 22

☒ C 28

☐ D None

23. If a number is added to the set that is in the middle of the data, how does this affect the range?

☐ A increase

☐ B decrease

☒ C stay the same

☐ D both increase and decrease

24. Find the median of the data set.
3,5,7,9,11

☐ A 3

☒ B 7

☐ C 11

☐ D 9

25. **Categorical Variables** describe a particular **characteristic**. The data is divided into **categories**. Which best shows categorical data?

☐ A
Coke
Salad
Pizza

☒ B
Target
WalMart
Sears

☐ C
Target
Taco Bell
Safeway

☐ D
Boy
Girl
Cat

26. The average score of a class in a test is 90. What would happen to the mean if another student scored 80?

☐ A Increase

☒ B Decrease

☐ C Stay the same

27. How many values are within one standard deviation of the mean?
180, 313, 101, 255, 202, 198, 109, 183, 181, 113, 171, 165, 318, 145, 131, 145, 226, 113, 268, 108

- ☐ A 9 ☐ B 10
☒ C 11 ☐ D 12

28. What is a data entry that is far removed from the other entries in the data set

- ☒ A Outlier ☐ B Inlier
☐ C Weighted Mean ☐ D Frequency

29. The _____ of a data set is the sum of the data entries divided by the number of entries.

- ☒ A Mean ☐ B Median
☐ C Mode ☐ D Range

30. If a number is added to a set that is far away from the mean, how does this affect standard deviation?

- ☒ A increase ☐ B decrease
☐ C stay the same ☐ D both increase and decrease

31. Mode for 23,45,46,33,44,32,49.

- ☒ A None ☐ B 44
☐ C 49 ☐ D 23

32. Two types of data scientists collect are...

- ☐ A random and sample ☒ B qualitative and quantitative
☐ C descriptive and inferential ☐ D parameter and statistic

33. Which answer best describes standard deviation?

- ☐ A Standard deviation is a measure of the spread of a dataset.
- ☐ B Standard deviation indicates how much individual values vary from the mean.
- ☐ C Standard deviation helps scientists summarize how much variation there is in a dataset or population.
- ☒ D All of the answers are correct.

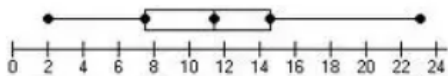
34. If a dataset is evenly distributed around the mean, this is certainly called a

- ☒ A normal distribution
- ☐ B symmetric distribution
- ☐ C bell curve
- ☐ D all of them

35. How do you find range?

- ☒ A Subtract the highest and lowest value
- ☐ B Add all the numbers and divide
- ☐ C Find the middle
- ☐ D It is the highest number

36.



Which of the following statements is FALSE about the box plot shown below. The graph shows the weights of small dogs recently brought into the vet clinic.

- ☐ A The smallest dog was 2 pounds.
- ☐ B The average weight of a dog was about 11.5 pounds.
- ☐ C The range of the weight of the dogs was 21 pounds.
- ☒ D 25% of the dogs weighed over 14.5 pounds.

37. Identify the outlier for the given data?
23, 34, 27, 7, 30, 26, 28, 31, 34

- ☒ A 7
- ☐ B 23
- ☐ C 31
- ☐ D 34

38. Find the midpoint:

3, 5, 7, 1

☐ A there is no midpont for this group

☐ B 6

☐ C 5.5

☒ D 4

39. A numerical quantity measuring some aspect of a population.

☒ A Parameter

☐ B Data

☐ C Statistics

☐ D Cencus

40. A Quantitative **Discrete Variable** takes exact number values and is often a result of **counting**. Which best describes discrete variables?

☐ A The score on your last test

☐ B How long it takes to drive to Seattle

☐ C The distance from Salem to Portland

☒ D The number of students in a school