

11. Determine whether the statement is true or false

A statistic is a measure that describes a population characteristic

- a. **True**
- b. **False. It describe a sample characteristic (correct answer)*******
- c. False. is the science of collecting, organizing, analyzing, and interpreting data in order to made decisions.

Yes , here you are right !!

12. Determine is the survey question is a biased. If the subject is biased, suggest a better wording.

Why is drinking fruit juice good for you?

- a. **Yes (correct answer)*******
- b. **No**

Yes , here you are right !!

Choose the best question

- a. **How do you think fruit juice affects your health? (correct answer)*******
- b. **Do you think that drinking fruit juice is good for you?**
- c. Why is drinking fruit juice bad for you?
- d. Do you think that drinking fruit juice is bad for you?
- e. The original question is not biased.

Yes , here you are right !!

13. The region of a country with the highest capita for the past six years is shown below:

Northwest Southeast Northern Northern Southern Northwest

Determine whether the data are qualitative or quantitative and identify the date set's level of measurement.

- a. **Qualitative**
- b. Quantitative

14. The data represents the actual high temperature for 14 consecutive days 80 60 70

70 70 80

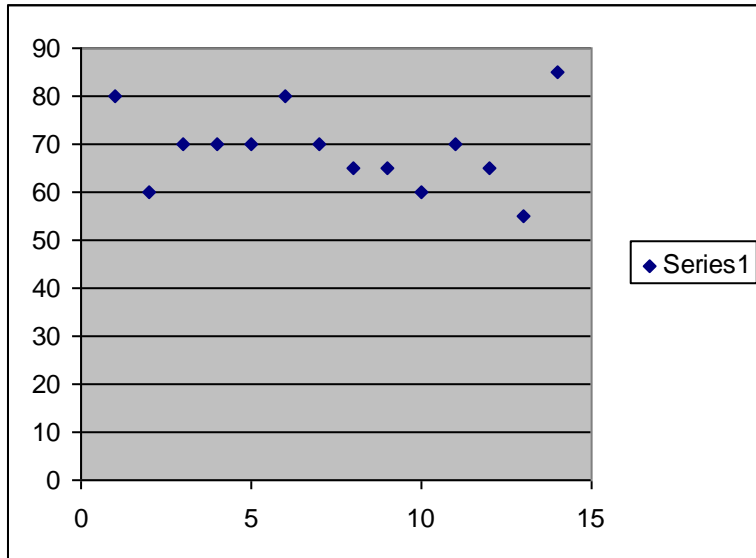
Construct a dotplot of the actual high temperatures. What does the dotplot

70 65 65

suggest about the distribution of the high temperatures

60 70 65

55 85



What does the dotplot suggest about the distribution of the high temperatures?

- a. The actual high temperatures range from 55 degrees to 85 degrees with most readings less than 55 degrees.
- b. The actual high temperatures range from 55 degrees to 85 degrees with most readings greater than 85 degrees.
- c. **The actual high temperatures range from 55 degrees to 85 degrees with most readings in the 55-70 degree range.**
- d. The actual high temperatures range from 55 degrees to 85 degrees with most readings in the 70-85 degree range.

15. the following data represents the number of customers waiting for a table at 6:00pm on Saturday for 30 consecutive Saturday at a restaurant.

Number of customers waiting

6 6 6 6 7

8 5 4 5 5

3 6 7 3 6

5 7 4 5 8

7 8 3 7 5

5 5 4 3 4

Construct frequency distribution of the data

Number of customers /Frequency?

3 = 4

4 = 4

5 = 8

6 = 6 (7 (correct answer)*****

7 = 5

8 = 3

No !! , here you are wrong !! Please see in my solution !! there are only 6 six's

Construct a relative frequency distribution of the data.

Number of customers /relative frequency? (Round to the nearest thousandth as needed)

3 = 4/30 0.1 (correct answer)****

4 = 4/30 0.133 (correct answer)****

5 = 8/30 0.267 (correct answer)****

6 = 6/30 0.233 (correct answer)****

7 = 5/30 0.167 (correct answer)****

8 = 3/30 0.1 (correct answer)****

Construct a cumulative frequency distribution of the data.

I am right !! Just I not convert into decimal numbers!! For example 3/30 = 0.1

Number of customers /cumulative frequency? (Round to the nearest thousandth as needed)

3 = 4 3 (correct answer)****

4 = 8 7 (correct answer)****

5 = 16 15 (correct answer)****

6 = 22

7 = 27

8 = 30

I am right !! Please see my solution in TABLE . I have marked my all selection in different colors.

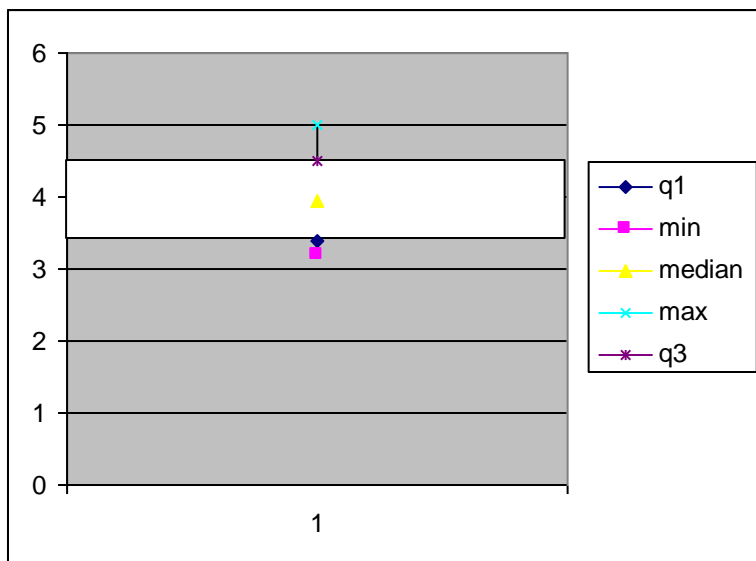
The number of customers with the greatest frequency is? 5 3 (correct answer)****

The number of customers with the least frequency is? 8 8 (correct answer)****

16. The data shows the lengths (in inches) of a sample of 14 butterfly wings

- a) Find the data set's first, second, and third quartiles
- b) Draw a box-and-whisker plot that represents the data set:

4.9; 4.8; 3.2; 4.3; 4.5; 3.6; 3.8; 3.4; 3.9; 3.3; 5.0; 4.0; 4.2; 3.4



Find the three quartiles

Q1 3.4

Q2 3.95

Q3 4.5

17. The number of wins in a league last year is listed. Make a frequency distribution for the data set (use four classes of width 2 starting at 3). Then approximate the population mean and the population standard deviation of the data set.

9, 8, 4, 4, 6, 4, 3, 4, 3, 3

Complete the frequency distribution

Class

3-4 7 **10 (correct answer)**** There are only 7 counts of 3 and 4**

5-6 1 **6(correct answer)******

7-8 1 **2(correct answer)******

9-10 1 **2(correct answer)******

The population mean is approximately how much? Simplify your answer by a number.

Mean = (9+ 8+ 4+ 4+ 6+ 4+ 3+ 4+ 3+ 3)/10 = 4.8 5.1 (correct answer)** I am right here**

The population deviation standard is approximately how much?

Standard Deviation = $\sqrt{Var} = \sqrt{\frac{1}{n} \sum_{i=1}^n (X_i - \bar{X})^2} = 2.15$ 1.96 (correct answer)** I am right here**

(Round to the nearest hundredth if needed).

18. The measure of position called the midquartile of a data set is found using the formula

$\frac{Q1 + Q3}{2}$

2

Find the midquartile of the giving data set, give a integer or a decimal.

23, 36, 48, 34, 35, 41, 40, 24, 32, 21, 38, 45

Arranging ascending order

21; 23; 24; 32; 34; 35; 36; 38; 40; 41; 45; 48

Then $Q_1 = 24$ | Quantil $Q_3 = 41$ |

Thus $Q_2 = \frac{Q_1 + Q_3}{2} = \frac{24 + 41}{2} = 32.5$ 34.25 (correct answer)****

I am absolutely right here !!