

- The mean of a list of numbers is the product of the numbers divided by the number of entries in the list.  
A) True  
B) False
- The median of a list of numbers arranged from smallest to largest is the Middle number.
- If a number in a data set occurs more frequently than any other number, it is called the \_\_\_\_\_ of the data.  
A) mean  
B) median  
C) mode  
D) average
- A(n) \_\_\_\_\_ is a data point that is significantly different from most of the data.  
A) foreigner  
B) outlier  
C) quartile  
D) anomaly
- The \_\_\_\_\_ quartile is the median of the upper half of the numbers in a list.  
A) first  
B) second  
C) third  
D) fourth
- Which of the following is not included in the five-number summary?  
A) Median  
B) Maximum  
C) Third quartile  
D) Mode

7. The standard deviation is a measure of how much the data are spread out from the mean.  
 A) True  
 B) False

8. A \_\_\_\_\_ is a bar graph that shows the frequencies with which certain data occur.  
 A) histogram  
 B) boxplot  
 C) scatterplot  
 D) line graph

9. Michael's five test scores in his physics class were 75, 67, 88, 91, and 84. What was his mean test score?

(81)

$$\frac{75 + 67 + 88 + 91 + 84}{5} = 81$$

10. Michael's five test scores in his physics class were 75, 67, 88, 91, and 84. What was his median test score?

(84)

67, 75, 84, 88, 91

11. XYZ Corporation recorded the number of employee absences each week over a period of 10 weeks. The result is the data list 5, 3, 4, 1, 4, 7, 2, 6, 3, 5. Find the mean number of absences each week.

(4)

$$\frac{5 + 3 + 4 + 1 + 4 + 7 + 2 + 6 + 3 + 5}{10} = 4$$

12. XYZ Corporation recorded the number of employee absences each week over a period of 10 weeks. The result is the data list 5, 3, 4, 1, 4, 7, 2, 6, 3, 5. Find the standard deviation of the number of absences each week.

(1.83)

please see class notes

13. Suppose that every student in your class scored 75% on their first test. Find the standard deviation of the exam scores.

(0)

Since all students scored 75%, the std deviation is zero.

14. A class has an equal number of boys and girls. The boys all got 77% on a test and the girls all got 83%. What is the standard deviation of the test scores for the class?

(3.00)

\* Since All Boys got 77% on the test and all girls got 83% on the test, then the mean is 80% and std deviation is 3%.

15. An auto dealer's sales numbers are shown in the table below. Find the mean price for the cars sold in June.

$21 \times 25000 + 35 \times 20000 + 47 \times 15000$   
 $\frac{\quad}{103}$   
 $= 18736.86$

Price	Number sold		
	June	July	August
\$25,000	21	23	24
\$20,000	35	32	37
\$15,000	47	51	44

$\$18737.86$

Total  
103

16. An auto dealer's sales numbers are shown in the table below. Find the median price for the cars sold in July.

Arrange them in order & keep cancelling till you find the median price

Price	Number sold		
	June	July	August
\$25,000	21	23	24
\$20,000	35	32	37
\$15,000	47	51	44

$\$20000$

15000, 15000, 15000, ... 20000, 20000, 20000, ...

25000, 25000, ... (23) of these

17. An auto dealer's sales numbers are shown in the table below. Find the mode price for the cars sold in August.

Price	Number sold		
	June	July	August
\$25,000	21	23	24
\$20,000	35	32	37
\$15,000	47	51	44

$\$15000$  because this appears the most in August.

18. Ted's six test scores in a biology class were 66, 45, 87, 74, 80, and 56. What was his average test score if his lowest test grade was dropped?

$66 + 87 + 74 + 80 + 56 = 73$

$73$

19. A class has 11 boys and 19 girls. The class as a whole has a grade-point average (GPA) of 2.84, and the boys have a GPA of 2.51. What is the GPA of the girls?

let GPA of girls = X

$11 \times 2.51 + 19 \times X = 2.84$

$3.03$

30  
Solve for X =>

$30(2.84) = 11 \times 2.51 + 19X$

$85.2 - 27.61 = 19X$

$57.59 = 19X$

$\frac{57.59}{19} \Rightarrow 3.03 = X$

20. A car company is testing the fuel economy of eight of its models. The results are found in the table below:

Model	City mileage (mpg)	Highway mileage (mpg)
Alpha	21	28
Beta	30	36
Gamma	27	35
Delta	19	22
Epsilon	18	23
Zeta	16	20
Eta	23	29
Theta	25	31

*Go to Stat Edit and plug in values for List 1*

*In TI 83 plus*

Find the five-number summary for highway mileage.

*2nd [Y=] type [ ] X List 1, plug in the Highway values in L1. Stat*

*Then choose <sup>ON</sup> Zoom Stat, and Graph, then trace the values to see and label each of the min, First quartile, median, third quartile, Max*

21. If data are normally distributed, then the mean and median are the same.

**TRUE**

*Because of Definition of Normally Distributed Data*

Answer Key	
1. B	13. 0
2. middle	14. 3.00
3. C	15. \$18,737.86
4. B	16. \$20,000
5. C	17. \$15,000
6. D	18. 73
7. A	19. 3.03
8. A	20. Minimum: 20
9. 81	First Quartile: 22.5
10. 84	Median: 28.5
11. 4	Third Quartile: 33
12. 1.83	Maximum: 36
	21. True