MA115A Dr. Katiraie Practice Problems for Section 6.1 Name: $\qquad$

1. 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
2. The median of a list of numbers arranged from smallest to largest is the
$\qquad$ number.
3. 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
4. $\mathrm{A}(\mathrm{n})$ $\qquad$ is a data point that is significantly different from most of the data.
A) foreigner
B) outlier
C) quartile
D) anomaly
5. The $\qquad$ quartile is the median of the upper half of the numbers in a list.
A) first
B) second
C) third
D) fourth
6. 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 $\qquad$ 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?
10. Michael's five test scores in his physics class were $75,67,88,91$, and 84 . What was his median test score?
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.
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.
13. Suppose that every student in your class scored $75 \%$ on their first test. Find the standard deviation of the exam scores.
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?
15. An auto dealer's sales numbers are shown in the table below. Find the mean price for the cars sold in June.

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

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

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

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

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

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

| Model | City <br> mileage (mpg) | Highway <br> 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 |

Find the five-number summary for highway mileage.
21. If data are normally distributed, then the mean and median are the same.

Answer Key

1. B
2. middle
3. C
4. B
5. C
6. D
7. A
8. A
9. 81
10. 84
11. 4
12. 1.83
13. 0
14. 3.00
15. $\$ 18,737.86$
16. $\$ 20,000$
17. $\$ 15,000$
18. 73
19. 3.03
20. Minimum: 20

First Quartile: 22.5
Median: 28.5
Third Quartile: 33
Maximum: 36
21. True

