Name:……………………………………………………. Class Section:…………………………………….

***Examination # 1***

1. The data show the number of hours of television watched per day by a sample of 28 people.

(**35 points**)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | |
| 8 | 0 | 5 | 5 | 2 | 5 | 2 | 1 | 6 |
| 4 | 7 | 2 | 9 | 3 | 7 | 1 | 3 | 8 |
| 0 | 7 | 4 | 4 | 5 | 6 | 5 | 5 | 9 |
| 5 |  |  |  |  |  |  |  |  |

1. Find the data​ set's first,​ second, and third quartiles.
2. Find the interquartile range, IQR
3. The midquartile of a data set is found using the formula , find the midquartlile of the given data above
4. Find the 5-number summary
5. Draw the Box-and-Whisker plot of the given data above
6. The gas mileages​ (in miles per​ gallon) for 100 cars are shown in the frequency distribution.

(**40 pts**)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Gas (in miles/gallon) | Freq  f | Relative  freq | Cum  Freq. | Midpt  x | x.f | x- *x̅* | (x- *x̅)*2 | f(x- *x̅)*2 |
| 19 - 23 |  |  |  |  |  |  |  |  |
| 24 - 28 |  |  |  |  |  |  |  |  |
| 29 -33 |  |  |  |  |  |  |  |  |
| 34 -38 |  |  |  |  |  |  |  |  |
| 39 -43 |  |  |  |  |  |  |  |  |
| 44 -48 |  |  |  |  |  |  |  |  |
| 49 -53 |  |  |  |  |  |  |  |  |
| 54 -58 |  |  |  |  |  |  |  |  |

1. Approximate the mean of the data distribution
2. Calculate the relative and cumulative frequency (just fill out the table)
3. Calculate the midpoints (use the table above)
4. Find the deviation of each class (use the table above)
5. Find the variance and standard deviation of the data distribution (use the table above
6. Write a detailed description/outline of all the skills you have learned in this course so far. In addition, indicate any concerns you may have and how you wish your professor can better assist you. (**25 points**)