Statistics

Assignment 2

1. **How can we figure out what the interquartile range is?**
   Ans: Interquartile range or IQR is the difference between the third quartile (Q3) and first quartile (Q1). We can say: IQR = Q3-Q1
2. **What exactly is the value of the 5-number theory?**
   Ans: The values of 5-number theory are given below:
   1. Minimum 2. First Quartile (Q1) 3. Median 4. Third Quartile (Q3) 5 Maximum
3. **What is the relationship between standard deviation and variance?**
   Ans: Standard deviation (σ) can be found if we square root variance (σ^2)
4. **What does the difference between variance and standard deviation mean?**
   Ans: To find the standard deviation, we need to find variance. But to find variance, it is not essential to find standard deviation. We can find the standard deviation by simply square rooting the variance.
5. **When is it appropriate to refer to a skewed data distribution?**
   Ans: When the mean and median are different numbers, it is a skewed data distribution. Distribution is not always gaussian or normal. For example, wealth distribution is a good example of right-skewed distribution. Again, human being's lifetime is an example of a left-skewed distribution.