In left & right-skewed data, what is the relationship between mean, median & mode?

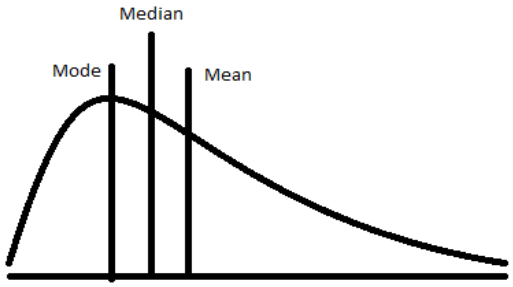
Draw the graph to represent the same.

Solution:-

We know that mean gets affected by outliers whereas median does not get affected by outliers.

In Right - Skewed Distribution, majority of the outliers will present on the right side which is the tail. And as mean gets affected by outliers and median does not, so the median will be less than the mean in case of Right - Skewed Distribution. Mode occurs at the highest frequency, so mode will be less than the mean and median in case of Right - Skewed Distribution.

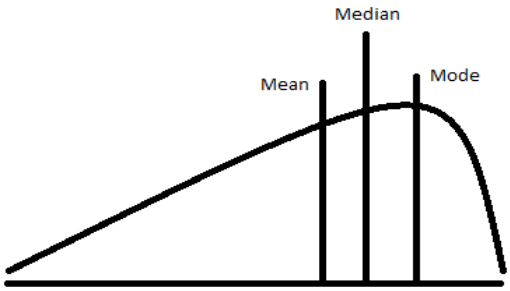
Right - Skewed Distribution: - Mode < Median < Mean



Right - Skewed Distribution

In Left - Skewed Distribution, majority of the outliers will present on the left side which is the tail. And as mean gets affected by outliers and median does not, so the median will be more than the mean in case of Left - Skewed Distribution. Mode occurs at the highest frequency, so mode will be more than the mean and median in case of Left - Skewed Distribution.

Left - Skewed Distribution: - Mean < Median < Mode



Left - Skewed Distribution