Answer on Question #54883 - Math - Statistics and Probability

Count: 100

Mean: 83.59

Median:93

Standard deviation: 22.26

IQR:17

Q1:80

Q3:97

- **a)** Which is better summary of the percentage of white residents in the neighborhood, the mean or median?
- **b)** Which is a better summary of the spread, the IQR or the standard deviation? Explain.

Solution

Pearson's skewness coefficient is

$$\frac{3(Mean - Median)}{\text{Standard deviation}} = \frac{3(83.59 - 93)}{22.26} = -1.268.$$

- **a)** A better summary of the percentage of white residents in the neighborhood is Median, because the distribution is so skewed to the left.
- **b)** A better summary of the spread is IQR, because the distribution is skewed.