Statistic Assignment

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5.) For the following set of scores, compute the range, the un biased and biased standard deviations, and the variance.

Scores: 94, 86, 72, 69, 93, 79, 55,88,70,93

Range: 39

Unbiased Standard Deviation: 13.10 / Variance - 171.66

Biased Standard Deviation: 12.43 / Variance - 154.49

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6.) For each of the following, indicate whether you would use pie, line or bar chart and why?

        (a). The proportion of freshmen, sophomores, juniors and seniors in a university.

                Pie – this chart should be used when displaying the proportion of an
                item   which makes up a series of data points. (Salkind 2017).

        (b). Change in temperature over a 24-hour period

                Line – according to the text, line charts should be used to show a trend in the data at

                 equal intervals. Examples where given such as the number of cases of mononucleosis

                per season among college students at three universities, toys sales for a company over

                a 4-quarter period, and the number of travelers on two different airlines for each

                quarter. Each example displays data over a period of time (Salkind 2017).

        (c). Number of applicants for four different jobs.

                 Bar – according to the text, a bar chart should be used when comparing frequencies of

                different categories. According to the examples given in the text such as the number

of participants in different water exercise activities, the sales of three different types of

products and the number of children in each of 6 different grades all compare

frequencies. The number of applicants for four different jobs is also a way in which

one could compare frequencies (Salkind 2017)

(d). Percentage of test takers who passed.

Pie – this chart should be used when displaying the proportion of an item   which makes up a series of data points. (Salkind 2017).

(e).   Number of scores in each 10 categories

Bar – according to the text, a bar chart should be used when comparing frequencies of

different categories. According to the examples given in the text such as the number

of participants in different water exercise activities, the sales of three different types

of products and the number of children in each of 6 different grades all compare

frequencies. The number of applicants for four different jobs is also a way in which

one could compare frequencies (Salkind 2017).

Reference

Salkind, N. (2017). Statistics for people who hate statistics. Thousand Oaks, CA: Sage.