KFUPM | Term 112 | Date: 26/2/2012

Mathematics & Statistics | STAT 319 | Duration: 30 minutes

Quiz# 1

Name: ID #: Section 1 Serial #:

Q1: Identify each of the following statements as True (T) or False (F):

1. A local cable system using a sample of 500 subscribers estimates that forty percent of its subscribers watch premium channel at least once per day. This is an example of statistical inference as opposed to descriptive statistics.
2. Estimating characteristics of the population is the main goal of descriptive statistics.
3. A relative frequency distribution describes the proportion of data values that fall within each class, and may be presented in a histogram form.
4. The graphical technique used to describe the relationship between two interval variables is the scatter diagram.

Q2: The following data represent the weights in pounds of a sample of 25 workers:

134	137	140	145	146	148	151	152	154	156
156	157	162	163	164	165	168	168	169	171
172	173	174	174	177					

Where $\sum_{i=1}^{25} x_i = 3976$ and $\sum_{i=1}^{25} x_i^2 = 636090$. Answer the following questions:

1. Construct a stem and leaf display for the weights.
2. Find the median weight.
3. Compute the sample mean weight.
4. Compute the sample variance, and sample standard deviation.

With My Best Wishes

KFUPM | Term 112 | Date: 26/2/2012

Mathematics & Statistics | STAT 319 | Duration: 30 minutes

Quiz# 1

Name: ID #: Section 1 Serial #:

Q1: Identify each of the following statements as True (T) or False (F):

1. A summary measure that is computed from a population is called a parameter.
2. A summary measure that is computed from a sample to describe a characteristic of the population is called a statistic.
3. The largest value in a set of data is 140, and the lowest value is 70. If the resulting frequency distribution is to have five classes of equal width, the class width will be 14.
4. When a distribution has more values to the right and tails to the left, we say it is skewed positively.

Q2: The following data represent the weights in pounds of a sample of 25 workers:

134	137	140	145	146	148	151	152	154	156
156	157	162	163	164	165	168	168	169	171
172	173	174	174	177					

Where $\sum_{i=1}^{25} x_i = 3976$ and $\sum_{i=1}^{25} x_i^2 = 636090$. Answer the following questions:

1. Compute the range and interquartile range of the data.
2. Construct a box plot for the weights and comment on the skewness.
3. Construct a frequency distribution for the data, using five class intervals, and the

---

With My Best Wishes