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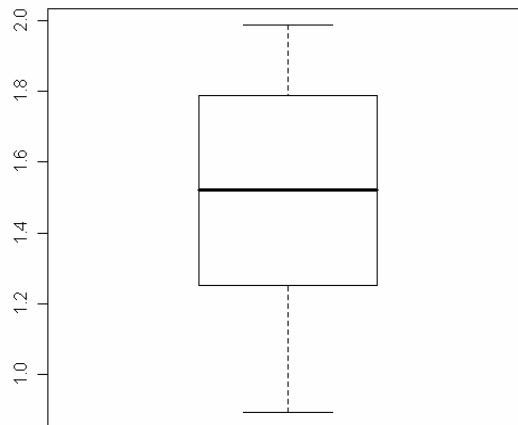
1. What measure of central tendency is most sensitive to extreme values?

A) Mode B) Median C) Mean D) They are about the same. **Ans. C**

2. A market research company has collected data on the price of a particular brand of soap in several different locations. The prices (\$) are as follows:

0.89, 0.95, 1.25, 1.36, 1.49, 1.55, 1.65, 1.79, 1.89, 1.99.

Draw a boxplot based on the five-number-summary: Min, Q1, Median, Q3, Max.

Min=0.89 Q1=1.25 Median= 1.52 Q3=1.79 Max=1.99

3. Find the sample mean and sample standard deviation of the data: 2, 5, 8, 6, 1.

$$\text{Sample mean } \bar{x} = \frac{1}{n} \sum_{i=1}^n x_i = \frac{1}{5} (2 + 5 + 6 + 8 + 1) = \frac{22}{5} = 4.4$$

Sample standard deviation

$$s = \sqrt{s^2} = \sqrt{\frac{1}{n-1} \sum_{i=1}^n (x_i - \bar{x})^2} = \sqrt{\frac{1}{4} \sum_{i=1}^5 (x_i - 4.4)^2} = \sqrt{8.3} = 2.88$$