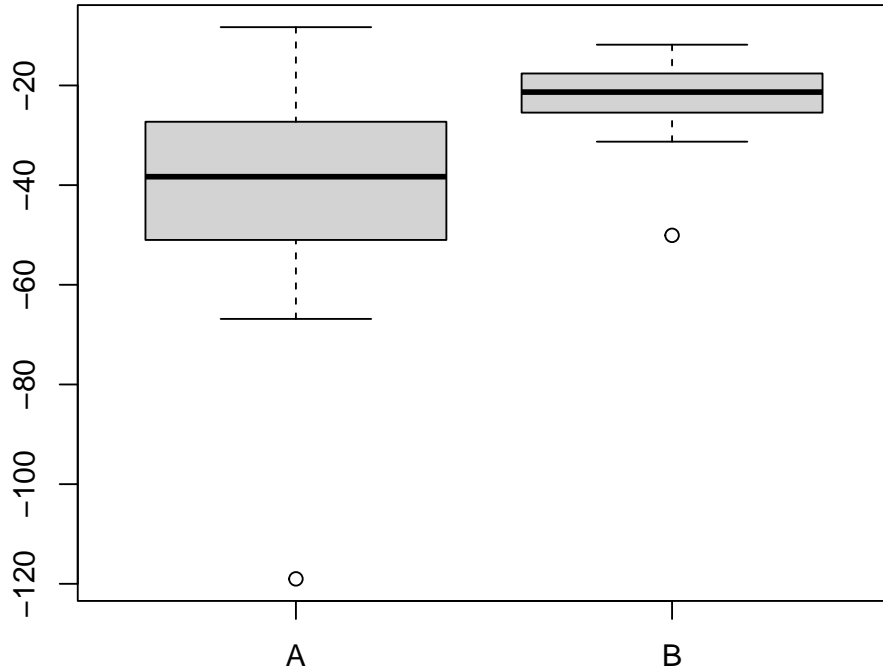


1. **Problem**

In the following figure the distributions of a variable given by two samples (A and B) are represented by parallel boxplots. Which of the following statements are correct? (*Comment: The statements are either about correct or clearly wrong.*)



- (a) The location of both distributions is about the same.
- (b) Both distributions contain no outliers.
- (c) The spread in sample A is clearly bigger than in B.
- (d) The skewness of both samples is similar.
- (e) Distribution A is right-skewed.

Solution

- (a) False. Distribution B has on average higher values than distribution A.
- (b) False. There are observations which deviate more than 1.5 times the interquartile range from the median.
- (c) True. The interquartile range in sample A is clearly bigger than in B.
- (d) True. The skewness of both distributions is similar, both are about symmetric.
- (e) False. Distribution A is about symmetric.