

Answer on Question #58567 – Math – Statistics and Probability

Question

A research is conducted to compare two weight loss diets, Diet A and Diet B. 30 subjects follow Diet A and 30 subjects follow Diet B for a year. At the end of the year, the weight loss (in kg) of each subject is recorded. Table 1 shows several descriptive statistics and Figure 1 represents the boxplot of weight loss for Diet A and Diet B. By using Table 1 and Figure 1, answer the following questions: Table 1: Descriptive Statistics for Diet A and Diet B Weight Loss (kg) Data Diet N Minimum Q1 Median Q3 Maximum Diet A 30 0.462 3.453 6.415 8.548 13.599 Diet B 30 0.200 2.037 4.157 7.716 15.491

(a) Which diet appears to be more effective? Give reason for your choice.

Solution

The median weight loss for Diet A equals 6.415 kg and for Diet B equals 4.157 kg.

Therefore, the Diet A appears to be more effective, because its median is greater.