

2007Q1

- (a) The average difference between the individual discoloration rating scores and the mean of the scores is 2.141 rating points, for the control group.
- (b) It appears that the preservative is effective because the median discoloration rating for the treatment group of 5 is lower (less discolored) than the median of 7 for the control group.
- (c) In the given confidence interval for the difference in mean discoloration rating $(0.16, 2.72)$ all the values are positive. Since a difference of 0 is not within the confidence interval this data does provide convincing evidence that there would be a difference in the population mean discoloration ratings. In fact, we are 95% confident that the difference in mean discoloration ratings is between 0.16 and 2.72 for the populations.