

Technology Project 6

Learning About the World

Group Members:

1. _____
2. _____
3. _____

Follow the Minitab instructions under the technology exercises link on the website for information about how to do the problems.

1. Test the claim that the average delay in reaching selected sites on the Internet from Richland is 55 ms.
2. Richland uses a program called SpamAssassin to detect spam email. SpamAssassin assigns a numerical score based on the likelihood that a message is spam. It marks any email with a score of 5 or more as "probably spam" and any message with a score of 10 or more as "highly likely spam". The instructor recently went through and collected the spam scores for four days worth of messages. Take a sample of 35 spam scores and test the claim that the mean spam score is greater than 10.
3. The American League has the designated hitter who gets to bat for the pitcher. Since the pitchers are usually the worst hitters, the on base percentage should be higher for the American League. Use the 2003 season data to test the claim that the American League has a higher on base percentage than the National League.
4. Use the 2003 season data to test the claim that major league pitchers do better (have a lower earned run average) when they are pitching at home than when they are away.
5. Demonstrate how the t distribution approaches the normal distribution by making a single graph that has two t distributions (one with $df=1$ and one with $df=5$) and a normal distribution on it. Label the distributions as $t=1$, $t=5$, and z .