

Name: \_\_\_\_\_

### SIGNIFICANCE TESTING: TAPE #20

Many states are passing laws requiring drivers to wear seat belts. Statistics can give us a basis for deciding whether or not these laws really work. In North Carolina the percentage of fatal accidents dropped from 4.7% to 3.8%.

1. Was the conclusion statistically significant?

Can statistics help decide if a poem was written by William Shakespeare? University of Chicago professor Ron Thisted used significance testing to try to shed some light on the problem.

2. What was the mean and standard deviation for the number of new words that Shakespeare used in his poems?

3. Did the conclusion prove whether or not Shakespeare wrote the poem? Why?

Matt Perez brought a class action suit against the FBI. He claimed that hispanic agents were being placed on the "taco circuit".

4. What did Gary Lefree, the statistician making a statistical argument for Matt Perez, try to state with his statistical picture?

5. What did Rebecca Klemm, the statistician making a statistical argument for the FBI, try to state with her statistical picture?

6. How did the Judge Lucius Bunton ultimately rule in the case?