

Name: _____

MAT 222

Spring 2019

Minitab Lab 2

“[Grace] Isn’t it a little early for that watermelon to be drunk?

[Frankie] I’m talking about you, Grace. You’re the watermelon”

– Grace Hanson, Frankie Bergstein, Grace and Frankie

The following exercise makes use of the `chicago-public-schools-data` folder.

- (1) Formulate a question which makes use of a 1-sample t -procedure.
- (2) Construct a confidence interval for the corresponding quantitative variable. Discuss this confidence interval in the context of the question.
- (3) Formulate an appropriate hypothesis test, and perform the test. Report your conclusions in the context of the question.
- (4) Discuss the preceding parts in the context of the question asked. Be sure to compute and discuss in context the probabilities for a Type I error and Type II error, and the power of the test to detect some alternative hypothesis.
- (5) Discuss any sources of error for your computations in the previous parts.

All of the parts above should be typeset appropriately into paragraph(s) which ‘flow’ and are understandable to a layperson.