

## STAT 251 Statistical Inference for Management I Winter 2012

### Quiz 7

Assigned on Wed Jan 18; due on Thur Jan 19. You may work with a group of as many as 4 students, submitting one quiz with all names, provided that you all contribute to the work. You may use your notes.

Suppose that a very small school offers 5 classes for a total of 100 students as follows:

Class #1: 60 students

Class #2: 20 students

Class #3: 10 students

Class #4: 5 students

Class #5: 5 students

(Notice that each student is in one class.)

For questions #1 and #2, consider the five classes to be the cases (observational units) and “number of students in the class” to be the variable.

- 1) Calculate the mean number of students per class. (Show/explain how you calculate this and all other calculations in this quiz.)
- 2) Calculate the median number of students per class.

Now for questions #3 and #4, consider the 100 students to be the cases (observational units) and “number of students in the student’s class” to be the variable.

- 3) Calculate the mean number of students per class. [*Hint*: First think about the value of this variable for each of the 100 students.]
- 4) Calculate the median number of students per class.
- 5) Which of the two mean class sizes (#1 or #3) do you think the school would want to advertise in order to claim that it has small classes? Do you think that would be misleading? Explain.