

### *Final Exam Comments*

As part of the final exam, you will be getting a series of problems/situations for which you will need to identify:

- 1) The correct test/procedure to use, and
- 2) Whether or not the test is directional.

Here is a simple example:

You want to know if the average mass blue whales is 160 metric tons. Somehow you manage to weigh 17 blue whales. How would you proceed?

*Answer: Since you only have one sample here, you would do a one sample t-test. The test is not directional since you (probably) don't know anything about blue whales (in other words, you can't tell if 160 metric tons is more or less than what might be expected).*

Incidentally, note that the directionality of a test is specified in the alternative hypothesis ( $H_1: \mu \neq 160$ , in this case)

**Important:** the tests/situations for which you need to identify the correct test/procedure can come from any part of the semester (this part of the final is comprehensive).

You will ***not need*** to perform tests/procedures from material covered by earlier exams, just identify when to use which test.

You may be presented with a situation ***which you do not know how to analyze*** (we didn't learn the procedure in our class). In this case you need to say that "we did not learn this procedure" (that will be one of the options).

The other questions on the final will be similar to the last exam and will cover ***only new material*** (starting with one sided tests going up to and including regression):

You will be getting a combination of the usual short answer type questions you have seen before.

You will need to do calculations/etc. to answer various questions, do hypotheses tests, and so on.

As usual, the homework problems are probably a good place to start for the type of problems.