

**Assignment #8 — Due Friday, November 5, 2010, by 4:00 P.M.**

Turn in homework to your TA's mailbox using this sheet as the cover page.

Fill in your name and also circle the *lecture section in which you are registered* and circle the *discussion section you expect to attend* to pick up this assignment.

**Name:**

**Lecture 1 (Larget).**      **311:** Tu 1:00 - 2:15pm      **312:** Th 8:00 - 9:15am      **313:** We 1:00 - 2:15pm

**Lecture 2 (Hanlon).**      **321:** Tu 1:00 - 2:15pm      **322:** We 2:30 - 3:45pm      **323:** We 1:00 - 2:15pm

Please answer the following questions. In each case, do the problem twice: (1) with either a hand calculator (or using R as a calculator using the functions `mean()` and `sd()`) to find the appropriate point estimate and margin of error for confidence intervals and test statistic for hypothesis tests (using `pt()` to find the p-value); and (2) using `t.test()` with appropriate arguments (`paired=true` or `var.equal=true`?). Make sure that your answers are consistent with each other. In each case, summarize your conclusions in the context of the problem (following models from lecture notes).

1. p. 311, Problem 15 in the textbook.
  2. p. 311, Problem 16 in the textbook (but report a p-value in your summary of the hypothesis test instead of a reject/do-not-reject conclusion for a fixed  $\alpha$ ).
  3. p. 312, Problem 19 in the textbook.
  4. p. 313, Problem 20 in the textbook.
  5. p. 314, Problem 23 in the textbook.
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