18.443 Problem Set 1 Spring 2014
Statistics for Applications
Due Date: 2/13/2015
prior to 3:00pm

Problems from John A. Rice, Third Edition. [*Chapter.Section.Problem*]

1. Problem 6.4.1

2. Suppose the random variable X has a t distribution with n degrees of freedom. For what values of n is the variance finite/infinite. Derive a formula for the variance of X (when it is finite).

3. 6.4.4. Also, answer the question if the random variable T follows a standard normal distribution $N(0, 1)$. Comment on the differences and why that should be.

4. Problem 8.10.10.

5. Problem 8.10.13.

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