

Homework 5

S520

Due at the beginning of class, Thursday 18th February

Trosset question numbers refer to the hardcover textbook. Give R code where appropriate and draw all graphs in R.

For this homework, you may either upload your answers to Canvas or submit on paper in class. If you upload to Canvas, your answers must be typed and in PDF format.

1. Trosset exercise 6.4.1
2. Trosset exercise 6.4.2
3. Trosset exercise 6.4.6. NOTE: There is a typo in the question: The variance of X should be 100/12.
4. Trosset exercise 7.7.1 parts (a)–(e)
5. Trosset exercise 7.7.2 parts (a)–(e)
6. In Major League Baseball, there are 15 teams in the American League, and 15 teams in the National League. The standings for the 2015 season can be found at

<http://mlb.mlb.com/mlb/standings/#20151004> The “W” column gives the number of wins for each team.

- (a) Using R, draw two boxplots side-by-side on the same graph: one for the wins of American League teams in 2015, and one for the wins of National League teams in 2015. Your graph should be labeled clearly, so that a statistician should be able to interpret the graph without any further explanation.
- (b) Describe (in sentences) the differences between the distributions of wins for American League and National League teams in 2015.