

ISyE 6739 – Group Activity 10

Names:

Group Number:

A summary statistics of Atlanta Falcons in the 2017 season is available via

<http://www.nfl.com/teams/atlantafalcons/schedule?team=ATL>

Consider both post- and regular season games and answer the problems below. Assume confidence level is 95%.

Problem 1. Find a confidence interval on the mean difference of attendance for home and away games. Assume the standard deviation of home games and away games are 1,000 and 1,200, respectively. Interpret the results.

Problem 2. Find a confidence interval on the mean difference of Falcons' scores for home and away games for the case where

- a) Variances are equal. Interpret the results.
- b) Variances are NOT equal. Interpret the results.

Problem 3. Find a confidence interval on the ratio of the standard deviations of Falcons' scores in home and away games. Comment on the consistency of the Falcons offense in home and ways games.

Problem 4.

- a) Construct an appropriate confidence interval to comment on the mean difference of defense performance when they play home vs. away games.
- b) Construct an appropriate confidence interval to comment on the consistency of the Falcons defense in home and ways games.

Problem 5. Construct an appropriate confidence interval to compare the performance of Matt Ryan and Devonta Freeman in terms of percentage of the games in which they were selected as the top passer and top rusher, respectively.