# Lab 6

## Due Date

Sunday March 6th 2022

## Task

A company that manufactures riding mowers wants to identify the best sales prospects for an intensive sales campaign. In particular, the manufacturer is interested in classifying households as prospective owners or nonowners on the basis of Income (in $1000s) and Lot Size (in 1000 ft2). The marketing expert looked at a random sample of 24 households, given in the file *RidingMowers.csv*. Use all the data to fit a logistic regression of ownership on the two predictors.

1. What percentage of households in the study were owners of a riding mower?
2. Use all the data to fit a logistic regression of ownership on the two predictors. Remember to create dummy variables, if appropriate.
3. Among nonowners, what is the percentage of households classified correctly?
4. What is the classification of a household with a $60K income and a lot size of 20,000 ft2? Use cutoff = 0.5.
5. What are the odds that a household with a $60K income and a lot size of 20,000 ft2 is an owner?