- 1. The sensitivity (proportion of spam emails that are classified as spam) will be 0%, the specificity (proportion of ham emails classified as ham) will be 10%.
- 2. If we predict ham for every email, the accuracy on the training set would be 74% (the percentage of ham emails).
- 3. Our logisitic regression classifier is only predicting about 1% better than predicting ham for every email, so its isn't very good.
- 4. The sensitivity of the logistic regression classifier is 63.5%, the specificity is 76.1%. The classifier is more likely to make false negatives (marking spam as ham).
- 5. The poor performance of our classifier tells us that our current words probably do not appear in many of the spam emails, or they appear in equally many spam emails as they do ham emails.