

Name: _____

Exercise 3, in-class 9/16/21 – UMass CS 490A

Naïve Bayes example (from J&M exercise 4.2)

Turn in via Gradescope after class or by next Monday

We are given the following short movie reviews, each labeled with a genre (comedy or action):

| review | label |
|-----------------------------|--------|
| fun, couple, love, love | comedy |
| fast, furious, shoot | action |
| couple, fly, fast, fun, fun | comedy |
| furious, shoot, shoot, fun | action |
| fly, fast, shoot, love | action |

Now, we are given a new review:

fast, couple, shoot, fly

Compute the most likely class for this review. Assume a naive Bayes classifier and use add-1 smoothing for the likelihoods.