



Final exam review

What did we learn in this course?

1. Python basics:

- [Python_1.ipynb](#)
- [Python_2.ipynb](#)

2. Numpy basics:

- [NumpyTutorial.ipynb](#)

3. Linear Regression by vector derivatives:

- [LinearModels.ipynb](#),
- [PlaneFitProblem](#),
- [Hessians](#),
- [Practice Problems for Midterm 1](#),

4. Optimization by Gradient descent:

- [ContinuousOptimization.ipynb](#)

5. 1-Layer Neural Network: [Perceptron3.ipynb](#)

6. Pre-midterm review: [Practice Problems](#)

Decision Theory:

- Lecture notes: [decision-theory.pdf](#). Additional resources:
- [Chapter 2 of MLStory book](#)

Bayes Rule

Question:

Given two random variables X and Y specify the relationship between $P(X|Y)$ and $P(Y$

Answer

D/V K/V D(V)