

Homework

Chapter 7 Recommending Movies to Watch

(30 points) Consider four users (A – D) and three movies (I – III), with ratings as indicated below. The training set is denoted with black, the test set is denoted with blue, and the unknown entries have “?”.

	I	II	III
A	4	5	2
B	?	5	3
C	3	2	5
D	5	4	3

1. Compute the **naïve** predictor.
2. Compute the RMSE on the test set for the **naïve** predictor
3. What is the bias of Movie III?
4. Compute the **baseline** predictor.
5. Compute cosine similarity between Movies I and III, for the baseline errors? What can you conclude?
6. Compute the **neighborhood** predictor
7. Compute the RMSE on the **test set** for the neighborhood predictor.

