

CSE 7/5337: Information Retrieval and Web Search

Spring 2012

Homework 3

Due: 4/9 at noon per email to mhahsler@lyle.smu.edu

1. Solve exercises 6.9 and 6.10 in IIR (page 119) [10 points each, 20 points]
2. Solve exercises 6.15, and 6.16 in IIR (page 126). Note: Normalization can be found on page 121 [5 points each, 10 points]
3. Solve exercise 6.17 in IIR (page 126). [10 points]
4. Solve exercises 6.18 and 6.19 in IIR (page 131). [10 points each, 20 points]
5. Write a short program that takes two vectors as input and computes the cosine similarity on the raw vectors and then after normalizing the vectors (to length 1). **Note: do not use existing functions for cosine or the dot product!** Test your program on the first two documents in example in Figure 6.9 in IIR (page 120) [30 points]
6. Solve exercises 8.1 in IIR (page 157). [10 points]