

22C : 031 (CS : 3310 : 0001) Algorithms  
Homework 5

Solve the following exercises:

- Exercise 3 of Chapter 13, after modifying the question as follows (15 points):
  1. In part (a), replace the last sentence “Also, give a formula ...” with: Also, give a formula (in terms of  $d$ , the number of conflicts per process) for the probability that a given process is in  $S$ .
  2. In part (b), replace the last two sentences (“In terms of ... this optimal value.”) with: Give a value for  $p$  (in terms of  $d$ ) so that the probability that a given process is in  $S$  is as large as possible.
- Exercise 9 of Chapter 13 (15 points)
- Exercise 3 of Chapter 6 (15 points)
- Exercise 4 of Chapter 6 (15 points)

The homework is due Tuesday, Nov 9, in class.