

Homework 28, due November 9

- (1) In a family of six, what is the probability that no two people have birthdays in the same month? Assume that all months have equal probabilities.
- (2) (Page 242, problem 1)
  - (a) If there are 30 people in a room, what is the probability that at least two have the same birthday? Compare this to the approximation in formula (8.1).
  - (b) How many people should there be in a room in order to have a 99 percent chance that at least two have the same birthday?
  - (c) How many people should there be in a room in order to have a 100 percent chance that at least two have the same birthday?
- (3) What is the probability that there are two students in a class of 200 with university ID numbers that have the same last four digits?