Quantitative Reasoning 28:
The Magic of Numbers

Homework 7

Assigned on Wednesday October 1st
Due at 12 noon Friday October 3rd

Please submit problem sets at the end of the relevant lecture, or leave in the box labeled QR28 outside the Math Department's main office, on the third floor of the Science Center (Room 325).

Reading:

Gross-Harris, Chapter 5

Problems:

Please explain your reasoning and show your work.

1. Flipping through your Rolodex you choose at random three friends, call them up, and ask them their birthdates.

   What is the probability that at least two of the people you chose were born on the same day of the week?

2. What is the probability of getting a flush in a game of poker? (NB: A flush is a hand with all cards having the same suit. Recall that there are four suits, each with thirteen cards. Assume that you're playing a game of five card stud: you just draw five cards and see what you get)