Math 456/556: Networks and Combinatorics
HW #1, due Friday, 1/8

The following problems from the textbook are **not** to be turned in, but I strongly recommended that you solve them:

Chapter 2: 2, 3, 6, 10, 13, 15.

The following problems are to be turned in:

1.1 How many integers greater than 76,000 have distinct digits, with the digits 1, 2, and 3 not occurring?

1.2 Ten dishes are offered at the cafeteria, four of which have meat, and the remaining six of which are vegetables. You are allowed to choose any four dishes, and at least one of them has to be a vegetable.

a) How many ways can you do this?

b) Suppose that you really hate the combination of meatloaf and okra (even though you are happy to eat either one individually). How many ways can you make your choice without taking both meatloaf and okra?