Math 164
Fall, 2009 Name:
Quiz 11 - §§11.4, 11.5

For each of the following problems circle T if the given statement is always true and F if the statement is sometimes false. There is no partial credit on this part of the quiz.

1. T F A set with n elements has 2^n subsets.

2. T F If you toss seven fair coins, there are 120 ways to obtain at least one head and one tail.

   Complete the following problems. Show all work and explain your reasoning.

3. Write out the first 7 rows of Pascal's triangle.

4. The ten longest Broadway runs include *The Phantom of the Opera* and *Les Miserables*. Four of the ten are chosen randomly (assume order is not important). How many of these groups of four would include neither of the two productions mentioned?