

1/30/2002  
Dr. Lunsford

MA331 Applied Prob/Stats I  
Quiz 3

Name: \_\_\_\_\_  
(20 Points Total)

All problems count four points each.

I. How many possible license plates are possible if a state uses three distinct (i.e. non-repeating) letters from the alphabet followed by a four-digit integer in which leading zeros and repetition of digits is permissible?

I. A submarine sandwich shop lets customers order sandwiches their way. An order consists of a choice of bread (white or whole wheat), a choice of cheese (American, Swiss, or cheddar), and from zero to nine choices of garnishes (such as lettuce, tomato, etc.).

(a) How many sandwiches can be made with exactly three garnishes?

(b) How many possible sandwiches can be made with zero up to nine garnishes?

II. An urn contains 4 red balls, 3 green balls, and 5 yellow balls. Six balls are drawn from the urn without replacement. What is the probability that exactly 2 of the 6 balls drawn will be red?

III. A fair coin is flipped seven times. What is the probability that the seven flips will result in exactly three heads?