

CSCI 2824-Spring 2015: In-class exercise #3

Date: Wednesday April 1, 2015

Last name:

First name:

Student ID:

- (1) How many bit strings of length between 1 and 4 are there?

ANS:

- (2) How many bit strings of length 5 begin with one 1 and end with one 0?

ANS:

- (3) How many bit strings of length 5 either begin with two 1's or end with two 1's?

ANS:

- (4) How many strings of four decimal digits do not contain the same digit four times?

ANS:

- (5) Among the integers between 1 and 100,000, how many integers are multiples of 3 or of 4?

ANS:

- (6) How many strings of four decimal digits contain 0 at least once?

ANS:

- (7) How many distinct arrangements of the letters in AABBA are there?

ANS:

- (8) How many bit strings of length 8 have three 1's, no two of which are adjacent?

ANS:

- (9) In how many ways can a photographer at a wedding arrange 4 people in a row, including the bride and groom, so that the bride must be next to the groom?

ANS:

- (10) We have three tee shirts. Two are red (indistinguishable) and one is violet. We have three people interested in these tee-shirts: Alice, Bob and Carol. How many possibilities ways are there of choosing a color for every person?

ANS: