1. A biased coin is tossed 3 times. On any toss, the probability of *heads* is 2/3 and the probability of *tails* is 1/3. Find the probability of

a) *all heads.*

b) *all tails.*

c) *at least one head*

d) *exactly two heads*

e) *exactly one tail*

2. Roll the dice. Find the probability that the

a) *sum is 7, sum is 4 , sum is 9*

b) *sum is greater than 5*

c) *sum is 7 or sum is greater than 5*

3. There are 15 children in Mrs. Barton's class.

a) How many ways can she select three of her students to serve as President, Vice-President, and Secretary?

b) How many ways can she select three of them to help plan the party?

4. From a group of 15 women and 10 men, a jury of size 7 is to be randomly selected.

a) How many ways can a jury with exactly 4 women be selected?

b) What is the probability that the jury has exactly 4 women?