

## Exercise on Counting Techniques:

1. How many ways can the five letters in the word “THINK” be rearranged to form a five-letter code word?
2. If one wishes to randomly select a representative from a group of 20 individuals which includes Paul, what is the probability that Paul will be the selected representative for this group of 20 people?
3. In drawing a set of 5 cards from a deck of 52 cards for playing a poker game, how many ways can it be “four of a kind”?
4. Paul has 5 male friends and 8 female friends. How many different ways can he invite 2 of his friends out of these 13 friends with one male and one female friend to lunch?
5. Paul has 5 male friends and 8 female friends. How many different ways can he invite 5 of his friends out of these 13 friends with 2 male and 3 female friends to a party?
6. How many ways can a person select 3 different beers from a collection of 10 different beers?
7. How many ways can Paul order 3 different beers, one for each of his 3 friends, from a collection of 7 different beers?
8. How many ways can the 10 letters in the word “STATISTICS” be rearranged to form a ten-letter code word?
9. How many ways can you give 5 different presents to the 8 guests that you have in a party, so that each person only gets at most one present?
10. An instructor is planning to distribute 4 copies of the same textbook to 10 students, and each student can only receive one copy. How many ways can it be done?