**Puzzle:**

1. Three ants are sitting at the three corners of an equilateral triangle. Each ant starts randomly, picks a direction and starts to move along the edge of the triangle. What is the probability that none of the ants collide?

2. Four people need to cross a rickety bridge at night. Unfortunately, they have only one torch and the bridge is too dangerous to cross without one. The bridge is only strong enough to support two people at a time. Not all people take the same time to cross the bridge. Times for each person: 1 min, 2 mins, 7 mins and 10 mins. What is the shortest time needed for all four of them to cross the bridge?

**Basic Code:**

1. How to find the maximum occurring character in a given String?
2. How to remove all duplicates from a given string?
3. How to print the duplicate characters from the given String?
4. How to remove characters from the first String which are present in the second String?
5. How to check if two strings are rotations of each other?
6. How to reverse a given String?
7. How to reverse String without recursion?
8. How to print all permutations of a String?
9. How to find the first non-repeating character in a given String?
10. How to reverse the words in a given String sentence?
11. How to find the smallest substring in a given string containing all characters of another string?
12. How to check if two given String is the anagram of each other?
13. How do you check if a given String is Palindrome or not?
14. How do you convert String to integer?
15. How do you remove a given character from String?
16. How do you count a number of words in String?

17. How do you find the longest palindromic substring of a given substring?
18. How do you check if a given string contains valid parentheses?