**Maximum Time : 1hr 30min**

**Question 1:**

Write a Program to efficiently generate and compute the age of people. You can write in any comfortable language you prefer.

Input: Ages of Different people (Eg: 10, 20, 30, 40, 45, 50, 60)

Output:

Age Group Total number of People

1-10 1

11-20 1

21-30 1

31-40 1

41-50 2

51-60 1

61-70 0

71-80 0

81-90 0

91-100 0

**Question 2:**

Problem: Rotate an array of n elements to the right by k steps. For example, with n = 7 and k = 3, the array [1,2,3,4,5,6,7] is rotated to [5,6,7,1,2,3,4]. How many different ways do you know to solve this problem?

**Question 3:**

Given a 2-D Array which is composed of 0s and 1s, find the number of connected 1s

Input:

1 1 1 1

0 0 1 1

1 0 1 1

1 1 0 1

Outline:

1 1 1 1

0 0 1 1

1 0 1 1

1 1 0 1

Output: 2