**Question 3 : Seating Arrangement in Exam Hall**

**Problem Statement  :**

Semester exams are going on for university students. Examiners noticed that a group of people are trying to cheat. They marked students of that group as ‘1’ and students of another group ( who are not cheating ) as ‘0’

We can reduce cheating by not allowing students from group 1 to sit together, means no two students from group 1 can sit together. Seatings are marked using above conditions. Your task is to give the seating placement of nth possibility Possibility order from 1 to 10 is given below

**[1  10  100  101  1000  1001  1010  10000  10001  10010]**

**Sample input :**

3 → number of test cases

4

6

9

**Sample output :**

101

1001

10001

**Explanation :**

4th possibility is 101

6th possibility is 1001

9th possibility is 10001