

# Jumping Numbers

Link : <https://practice.geeksforgeeks.org/problems/jumping-numbers/0>

Given a positive number **X**. Find all Jumping Numbers smaller than or equal to **X**.

**Jumping Number:** A number is called Jumping Number if all adjacent digits in it differ by only 1. All single digit numbers are considered as Jumping Numbers. For example **7**, **8987** and **4343456** are Jumping numbers but **796** and **89098** are not.

## Input:

The first line of the input contains **T** denoting the number of testcases. Each testcase contain a positive number **X**.

## Output:

Output all the jumping numbers less than **X** in sorted order. Jump to example for better understanding.

## Constraints:

$1 \leq T \leq 100$

$1 \leq N \leq 10^9$

## Example:

### Input:

2

10

50

### Output:

0 1 2 3 4 5 6 7 8 9 10

0 1 2 3 4 5 6 7 8 9 10 12 21 23 32 34 43 45

## Explanation:

**Testcase 2:** Here, the most significant digits of each jumping number is following increasing order, i.e., jumping numbers starting from 0, followed by 1, then 2 and so on, themselves being in increasing order 2, 21, 23.