

Problem -1

Little girl A is learning how to decrease a number by one, but she does it wrong with a number consisting of two or more digits. She subtracts one from a number by the following way -

>> if the last digit of the number is non-zero, she decreases the number by one;

>> if the last digit of the number is zero, she divides the number by 10 (i.e. removes the last digit).

You are given an integer number n . A will subtract one from it k times. Your task is to print the result after all k subtractions.

It is guaranteed that the result will be a positive integer number.

Range of n -> 2-1000000000

Range of k -> 1-50

Sample Input -

512 4

1000000000 9

Sample output -

50

1

Problem-2

Programming Hero headquarters has N floors, called the 1-st floor through the N -th floor. Each floor has K rooms, called the 1-st room through the K -th room.

Here, both N and K are one-digit integers, and the j -th room on the i -th floor has the room number $i0j$. For example, the 2-nd room on the 1-st floor has room number 102.

Now you are interested in the sum of the room numbers of all rooms of the Programming Hero headquarters, where each room number is seen as a three-digit integer. Find this sum.

Range of N and K -> 1-9

Sample Input-

1 2

3 3

Sample Output -

203

1818

Problem-3

For his birthday, Kevin received the set of pairwise distinct numbers $1, 2, 3, \dots, n$ as a gift.

He is going to arrange these numbers in a way such that the minimum absolute difference between two consecutive numbers is maximum possible. More formally, if he arranges numbers in order p_1, p_2, \dots, p_n , he wants to maximize the value $\min |p_{i+1} - p_i|$ where the value of i is 1 to $n-1$.

Help Kevin to do that

Range of n - 1-1000

Sample Input -

4

3

Sample Output -

2 4 1 3

1 2 3