Harshit and chocolates :

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Harshit is fond of eating chocolates but eating more and more chocolates results in cavity. If impact due to eating ‘x' no of chocolates is equal to f(s, x) then find the maximum no of chocolates Harshit can eat for a given safe impact limit without crossing this safe limit.

In function f(s, x) s is a non zero integer. If s is s1s2s3…sn then the function returns sn*x+ sn-1 *(x+1)…+s1*(x+n-1)

Input :

- The first line of the input contains a single integer T denoting the number of test cases. The description of T test cases follows.
- The first line of each test case contains a single integer P denoting the safe impact limit.
- The second line of each test case contains s and it may contain leading zeroes.

Output :

For each test case, print a single line containing one integer — the maximum no of chocolates that can be eaten without crossing safe limit P.

Constraints :

1<=T<=10^5
1<=P<=10^5
1<=|s|<=9

Sample Input:

2
50
101
1000
122

Sample Output:

24
199

Explanation:

In test case 1, for no of chocolates as 24 f(101,24)=1*26+0*25+1*24=50. So maximum 24 chocolates can be eaten.