1158 - Anagram Division

Given a string \mathbf{s} and a positive integer \mathbf{d} you have to determine how many permutations of \mathbf{s} are divisible by \mathbf{d} .

Input

Input starts with an integer $T \leq 200$, denoting the number of test cases.

Each case contains a string s (1 $\leq s_{length} \leq$ 10) and an integer d (1 $\leq d \leq$ 1001). s will only contain decimal digits.

Output

For each case, print the case number and the number of permutations of s that are divisible by d.

Sample Input	Output for Sample Input
3	Case 1: 1
000 1	Case 2: 3628800
1234567890 1	Case 3: 90
123434 2	