1158 – Anagram Division

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

Input

Input starts with an integer **T (≤ 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
3 000 1 1234567890 1 123434 2	Case 1: 1 Case 2: 3628800 Case 3: 90