

Coding Test

Great programmer "Tourist" is attending a coding test. In this test he is asked to solve an easy problem. The problem description is,

There is an array a consists of n integers and another nonnegative integer x . He need to find the number of pair (i, j) where $i \neq j$ & $a_i - a_j = x$.

As it is very easy for him, he gave you this problem and start trying another hard problem. Can you solve this for him?

Input

Input starts with an integer t ($1 \leq t \leq 10$), number of test case.

Each case contains two integer n ($1 \leq n \leq 10^5$), and x ($0 \leq x \leq 10^9$).

Next line contains n separated integers a_i ($1 \leq a_i \leq 10^9$).

Output

For each case, print the case number and the number of pairs which meet the above condition.

Example

Input:

2

5 3

5 1 4 2 3

10 2

12 17 19 13 17 11 17 12 15 14

Output:

Case 1: 2

Case 2: 10