

Problem: Help Gustavo to choose the games!

Gustavo got a Knights arcade game card with T points in it. Knights arcade has n unique games where each game requires a unique number of points to play. Gustavo is allowed to play only two games and he wants to spend the full T points to play two games so that no points will remain in the card. So, he needs to decide whether it is possible or not to play two games that will cost exactly T points. Given an array of n distinct none zero values representing the points needed to play the games. Also, given the target points T available on the card. Determine in $O(n)$ time whether or not there exist two distinct points in the array that sum to T. The given array maybe sorted or may not be already sorted. It will be specified in the input whether it is sorted or not and you have to fulfill specific requirement based on the sorted status. (For example, if the array contained 3, 5, 6, 7, and 9 and T = 14, then the method you are to write should return points pair (5,9), since $5+9 = 14$. It should return points pair (0,0) for the same array of points if T = 17.)

Input Format (Your code must read from standard input (no file i/o is allowed))

The first line of the input will have a single positive integer k, representing the number of test cases in the inputs. The next $2*k$ lines will contain the test cases, with two lines being used for each test case. The first value on the first line of each test case will be the sorted status (0 means unsorted, 1 means sorted). The next number in the line is n, the size of the array (the number of games in the Knights arcade). The rest of the line will contain n distinct none zero integers representing the points needed to play, each separated by spaces. The second line of each test case will contain a single integer, T, the target for the problem (The number of points in the game card). Here's an example input contents:

```
4
1 5 3 5 6 7 9
14
0 3 1 6 3
11
0 6 4 1 -8 6 45 10
16
1 6 -8 1 4 6 10 45
16
```

Output Format

For each test case, output a line with one of the following two formats:

Test case #m: Spend X points by playing the games with n1 points and n2 points.

Test case #m: No way you can spend exactly X points.

where m ($1 \leq m \leq k$), represents the appropriate test case. In the output n1 also must be less than n2

Example output for the above inputs:

Test case#1: Spend 14 points by playing the games with 5 points and 9 points.

Test case#2: No way you can spend exactly 11 points.

Test case#3: Spend 16 points by playing the games with 6 points and 10 points.

Test case#4: Spend 16 points by playing the games with 6 points and 10 points.