9. Short Walk on El Camino Big Num

Program Name: Shortwalk.java **Input File: shortwalk.dat**

Juan and Frank are planning on moving, but they are good buddies and so they want to buy two houses that are close together. They have searched realtor.com and found houses for sale on various streets. They want to live together on the same street and so they want to know how close the closest houses are on a given street. Write a program to determine the difference between the closest addresses on a given street. There may be more than one pair of houses that are closest together on a street based on address so print out the number of pairs of houses that are the smallest distance apart for each street.

Input

- The first line will contain a single integer `n` that indicates the number of data sets that follow.
- For each data set:
  - The first line of a data set will be the name of the street for that data set.
  - The second line of the data set will be a single integer `m` that indicates how many addresses follow, where `m` will be greater than 1.
  - The next `m` lines will be integers representing street addresses, 0 < address < 100,000,000,000,000 (These are very long streets.)
  - No address will appear more than once per data set.

Output

For each data set print out the name of the street, the smallest difference between street addresses on that street, and the number of pairs of addresses on that street that are the minimum distance apart as shown in the Example Output to Screen below.

Example Input File

```
3
El Camino Real
5
1000
750
10000
2000
1
El Camino Big Num
4
9000000000
10000000000
10000000009
1
Sweet Cherry Lane
5
1000
900
1100
9000
9100
```

Example Output to Screen (see next page)

9. Short Walk on El Camino Big Num (cont.)

Example Output to Screen

```
El Camino Real
min distance: 250
number of pairs: 1
El Camino Big Num
min distance: 9
number of pairs: 1
Sweet Cherry Lane
min distance: 100
number of pairs: 3
```