

# 10803 Thunder Mountain

*“I mean, some people got guns, and some people got flashlights, and some people got batteries. These guys had all three.”*  
 J. Michael Straczynski, "Jeremiah."

Markus is building an army to fight the evil Valhalla Sector, so he needs to move some supplies between several of the nearby towns. The woods are full of robbers and other unfriendly folk, so it's dangerous to travel far. As Thunder Mountain's head of security, Lee thinks that it is unsafe to carry supplies for more than 10km without visiting a town. Markus wants to know how far one would need to travel to get from one town to another in the worst case.

### Input

The first line of input gives the number of cases,  $N$ .  $N$  test cases follow. Each one starts with a line containing  $n$  (the number of towns,  $1 < n < 101$ ). The next  $n$  lines will give the xy-locations of each town in km (integers in the range  $[0, 1023]$ ). Assume that the Earth is flat and the whole  $1024 \times 1024$  grid is covered by a forest with roads connecting each pair of towns that are no further than 10km away from each other.

### Output

For each test case, output the line 'Case # $x$ :', where  $x$  is the number of the test case. On the next line, print the maximum distance one has to travel from town A to town B (for some A and B). Round the answer to 4 decimal places. Every answer will obey the formula

$$|ans * 10^4 - \lfloor ans * 10^4 \rfloor - 0.5| > 10^{-2}$$

If it is impossible to get from some town to some other town, print 'Send Kurdy' instead. Put an empty line after each test case.

### Sample Input

```
2
5
0 0
10 0
10 10
13 10
13 14
2
0 0
10 1
```

### Sample Output

```
Case #1:
25.0000
```

Case #2:  
Send Kurdy