

Problem 5. Groups

You are given a plane with N points with integer coordinates in it. You can group the points in a way that the distance between each pair of them is more than K . Your task is to write a program **groups**, that computes the maximum number of groups you can make.

Input: The first line of the input file **groups.in** contains a single integer N . The following N lines contain two integers in range of (0-10000) - the coordinates of the given points. The last line contains a single integer - K .

Output: In the output file **groups.out** you should print the desired maximal number of groups you can make.

Constraints:

$$1 \leq N, K \leq 10000$$

Example:

groups.in	groups.out
8 41 8467 6334 6500 9169 5724 1478 9358 6962 4464 5705 8145 3281 6827 9961 491 3005	3