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 - К.

 **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** |
| 841 84676334 65009169 57241478 93586962 44645705 81453281 68279961 4913005 | 3 |