MIN-HEAP

Given a sequence of pairs of integers, where each pair represents a point (x,y) on the X-Y plane, construct a min-heap of these pairs, based on their distance from the origin.
Delete the smallest element and print them, until the heap is empty.

Input format:
First line contains the number of points.
Second line and the lines following will contain pairs of integers, representing the point.

Output format:
Print the pairs (one space separated), one below the other in the sequence in which it has been deleted from the min-heap

Sample Input:
4
-2 4
1 3
5 -1
3 3

Sample output:
1 3
3 3
-2 4
5 -1