

# <codeclash>2019

## Code Clash Official Problem #10 'Delivery'

### Problem statement

A delivery truck's route changes every day depending on what packages need to be delivered. It is important for business that the delivery truck takes the most efficient route between its destination points so that no time is wasted. Your program must determine the shortest route to follow between each of the necessary stops. The truck will start at the warehouse, visit all the stops in the list of clients, and finally return to the warehouse. The warehouse is located at the origin, with coordinates 0, 0. The warehouse and all the stops are laid out as points on a coordinate plane. The truck must travel in a straight line from point to point. There are two solution paths with equal distance (one for each direction of travel, one going A-Z and another going Z-A). Print the solution path with the first stop that is closest to the warehouse.

Each line of input will contain an x and y coordinate separated by a comma and a space. Your program's output must be the list of the stops' coordinates formatted in the same fashion as the input, but arranged in an order that will allow the delivery truck to travel most efficiently. The last point will always be the warehouse at 0, 0. Do not print the warehouse coordinates as a part of your output. All numbers will be non-negative integers and less than 1000.

### Sample test case

Sample input and output for this problem:

Input	Output
39, 40	39, 40
266, 366	48, 223
123, 14	266, 366
48, 223	356, 228
329, 10	329, 10
356, 228	123, 14
0, 0	