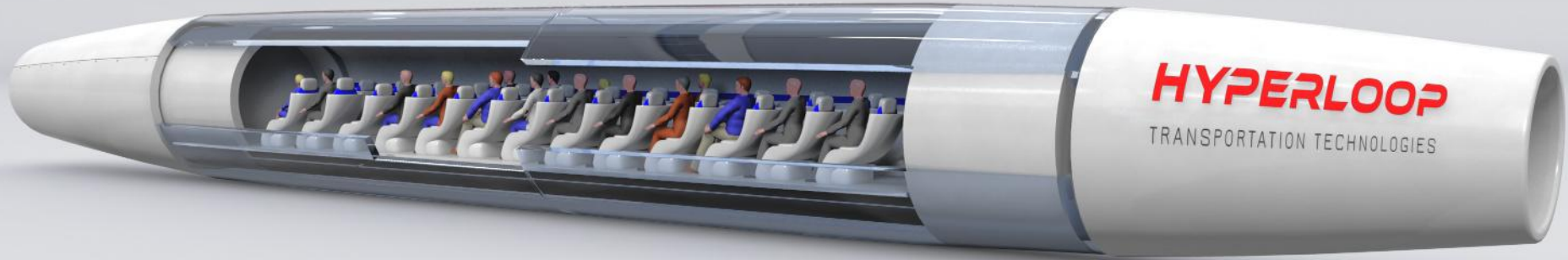


# Hyperloop Direct

Catalysts School Coding Contest  
International 2017





# Hyperloop

Hyperloop is a new transportation technology. Passengers travel very fast in low pressure tubes. Hyperloop tubes cannot bend much, because passengers travel so fast. Your task is to find out where it is possible to build hyperloop routes.



# Level 1 - Dividing line

## Definitions

- The world is mapped as a grid of points. **All coordinates are integers.**
- The **start point** of the tube is at (0,0).
- **Targets** are points to which we may wish to build a hyperloop tube.

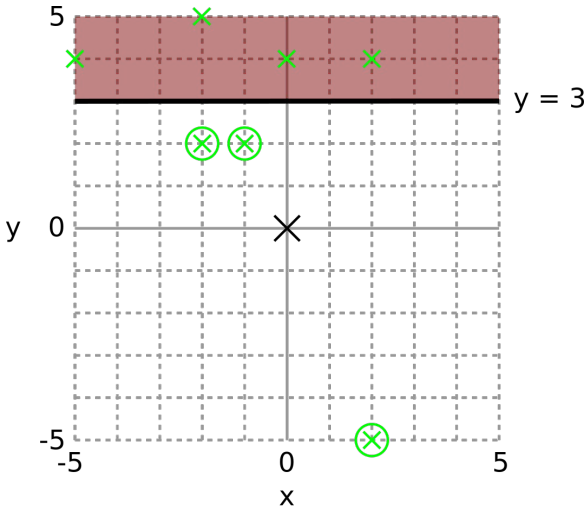
## Task

Before we start planning where to build, we need to do some analysis of the data. Imagine we separate the map into two areas with a line at a given Y-coordinate. Find the targets which are in the same area as the start point.

Output the relevant targets in the order given in the input.

## Notes

- The separating line will not have Y-coordinate zero.
- No targets will have the same Y-coordinate as the separating line.



Legend

✕

Start point

x

Target

⊗

Target to output

# Data format

## Input

<LineY> the Y-coordinate of the separating line

<T> the number of targets

T lines: <X> <Y> the coordinates of a target

## Output

<X\_1> <Y\_1> ... <X\_M> <Y\_M>



# Example

## Input

3  
7  
2 -5  
2 4  
0 4  
-2 5  
-1 2  
-2 2  
-5 4

## Output

2 -5 -1 2 -2 2

