

# 1 - Quadrant Position

You are given a positive (x and y) cartesian coordinate in the form of a string, with the x and y separated by a space. Your task is to reflect the coordinate onto the other four quadrants of the plane in a clockwise direction. E.g. positive x, negative y will be on the first line of output.

Output the result on 3 lines, each line with a x and y coordinate separated by a space.

For example:

Input:

>1 1

Output:

>1 -1

>-1 -1

>-1 1

## 2 - Morse decode

Given a sequence of "." and "-". Print the secret code as output. There will be one space in-between characters and 3 spaces between words.

The input is on a single line, with the morse code as a string.

Output the secret code on a single line. All characters should be in uppercase. Spaces between words should be represented by a single space.

For example:

Input:

>... --- ... --- ...

Output:

>SOS SOS

Letter	Morse
A	*.-
B	_.***
C	._.*
D	._**
E	*
F	***.
G	__*
H	****
I	**
J	*---
K	._.*
L	*._**
M	--
N	._*
O	---
P	*._.*
Q	__*.
R	*._*
S	***
T	-.
U	**_
V	***_
W	*._.
X	._**.
Y	._*..
Z	--**

### 3 - Square coordinates

Given 4 cartesian coordinates that represent a square on a cartesian plane, output the number of points with integer coordinates that lie within, or on the sides of the square.

The input is given in a 2x4 2D array denoting the x y coordinates of each point that makes up the square in a clockwise direction.

Output a single integer denoting the number of points.

For example:

Input:

>[[1,1],[1,-1],[-1,-1],[-1,1]]

Output:

>9 (4 vertices, 4 on the edges, 1 within)

