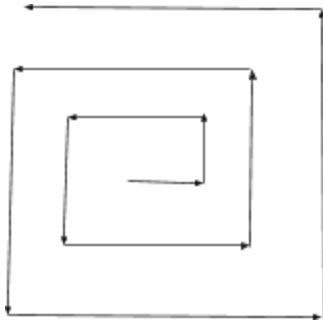


Unique Number

Nick Nickleton, CEO of Nicktronics Industries, has wanted his very own pairing function for as long as he can remember. Unfortunately, he is very lazy. You have been assigned the task of implementing this function.

This function gives a unique value for every combination of two integers. This means that for every (x, y) there is a unique number. The function starts with $(0, 0) \rightarrow 0$ and spirals around the center, increasing counterclockwise, going to $(1, 0) \rightarrow 1$, $(1, 1) \rightarrow 2$, $(0, 1) \rightarrow 3$, etc.



		X				
		-2	-1	0	1	2
Y	2	16	15	14	13	12
	1	17	4	3	2	11
	0	18	5	0	1	10
	-1	19	6	7	8	9
	-2	20	21	22	23	24

Input

Each input has two numbers **a** and **b**, where: $-10,000,000 < a, b < 10,000,000$. Input ends when **a** and **b** are equal to 0. Do not print the output from that input.

Output

For each set of input, print out that pair's unique number on a new line.

Sample Input

```
1 0
1 1
0 1
-1 1
-1 0
-1 -1
0 -2
3 4
0 0
```

Sample Output

```
1
2
3
4
5
6
22
57
```