Spurdo Treasures

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	256 megabytes

In an ancient temple, the famous bounty hunter Spurdo found a room with hidden ancient relics. Taught by his previous experience, the researcher knows that there are usually many deadly traps hidden in such temples.

Overcoming his greed, Spurdo decided to take exactly two artifacts. He is well aware of the following trap: the artifact stands on a pressure plate, and when the artifact is removed from the plate , the trap mechanism is triggered.

He was able to estimate that the treasures have weights $L, L+1, L+2, ..., R-1, R$. In other words, in total there are $R-L+1$ treasures, and the treasure with the number i has a weight of $L+i-1$.

After solving several riddles on the walls, Spurdo learned that it was necessary to select artifacts so that the sum of their weights was equal to a full square. In other words, choose artifacts with weights A and B so that $A+B=C^2$ for some integer C.

Your goal is to help the bounty hunter.

Input

You are given two integer numbers L, R ($1 \le L < R \le 10^{18}$)

Output

Print two integers a, b — the weights of the treasures to be picked up. If there is no answer, print $a=-1$, $b=-1$.

If there are several answers, you can output any of them.

Examples

standard input	standard output
3 41	5 11
6 7	-1 -1