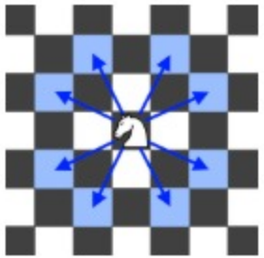
1197. Minimum Knight Moves

Medium 222 89 Add to List Share

In an **infinite** chess board with coordinates from `-infinity` to `+infinity`, you have a **knight** at square `[0, 0]`.

A knight has 8 possible moves it can make, as illustrated below. Each move is two squares in a cardinal direction, then one square in an orthogonal direction.



Return the minimum number of steps needed to move the knight to the square `[x, y]`. It is guaranteed the answer exists.

Example 1:

```
Input: x = 2, y = 1
Output: 1
Explanation: [0, 0] → [2, 1]
```

Example 2:

```
Input: x = 5, y = 5
Output: 4
Explanation: [0, 0] → [2, 1] → [4, 2] → [3, 4] → [5, 5]
```

Constraints:

- `|x| + |y| <= 300`

```python
class Solution(object):
    def minKnightMoves(self, x, y):
        """
        :type x: int
        :type y: int
        :rtype: int
        """

```