

# 223. Rectangle Area

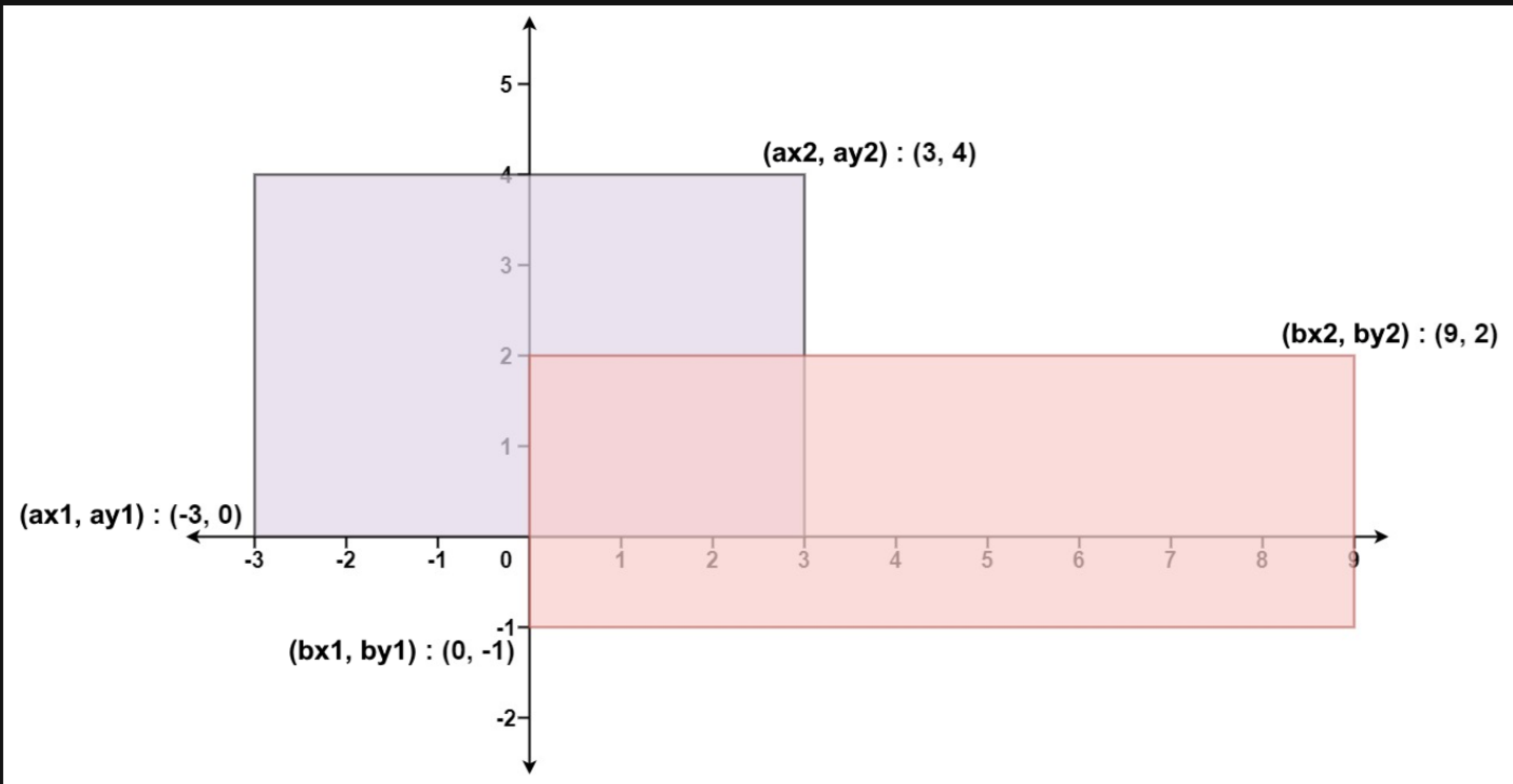
## Description

Given the coordinates of two **rectilinear** rectangles in a 2D plane, return *the total area covered by the two rectangles*.

The first rectangle is defined by its **bottom-left** corner `(ax1, ay1)` and its **top-right** corner `(ax2, ay2)`.

The second rectangle is defined by its **bottom-left** corner `(bx1, by1)` and its **top-right** corner `(bx2, by2)`.

### Example 1:



**Input:** `ax1 = -3, ay1 = 0, ax2 = 3, ay2 = 4, bx1 = 0, by1 = -1, bx2 = 9, by2 = 2`  
**Output:** `45`

### Example 2:

**Input:** `ax1 = -2, ay1 = -2, ax2 = 2, ay2 = 2, bx1 = -2, by1 = -2, bx2 = 2, by2 = 2`  
**Output:** `16`

### Constraints:

- `-104 <= ax1 <= ax2 <= 104`
- `-104 <= ay1 <= ay2 <= 104`
- `-104 <= bx1 <= bx2 <= 104`
- `-104 <= by1 <= by2 <= 104`

