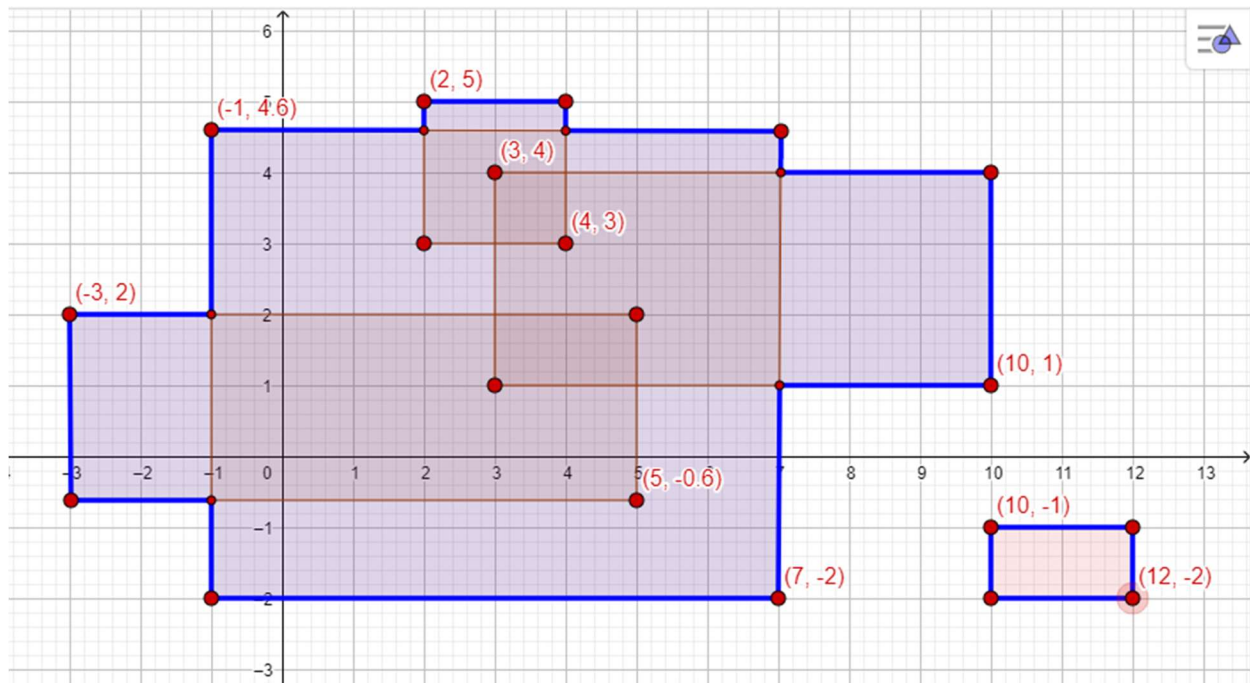


I. Total Area Covered

Time Limit: 3 seconds

Problem description

In this question, you are asked to calculate the total area covered by all rectangles in the Cartesian coordinate system.



Input:

User uses standard input stream (stdin) to enter input using the format:

- Line 1: the number of rectangles
- Each next line: coordinates of the upper left and lower right corner points of a rectangle.
Note: coordinates can use real numbers.

Output:

The system will display the total area (rounded to 6 digits after the decimal point) that all rectangles cover.

Example 1

Input	Output
5 -1 4.6 7 -2 -3 2 5 -0.6 2 5 4 3 3 4 10 1 10 -1 12 -2	69.8