

# Homogeneous area

[Wersja polska](#)

[English version](#)

Given two rectangles You are to calculate the area they occupy.

## Input

There is unknown number of tests. Each test consist of eight integers

$x_{A1}$   $y_{A1}$   $x_{A2}$   $y_{A2}$   $x_{B1}$   $y_{B1}$   $x_{B2}$   $y_{B2}$  ( $|all| \leq 10^6$ ).

Input ends when all numbers equal 0.

## Output

For each test You should print the area these two rectangles occupy.

## Example

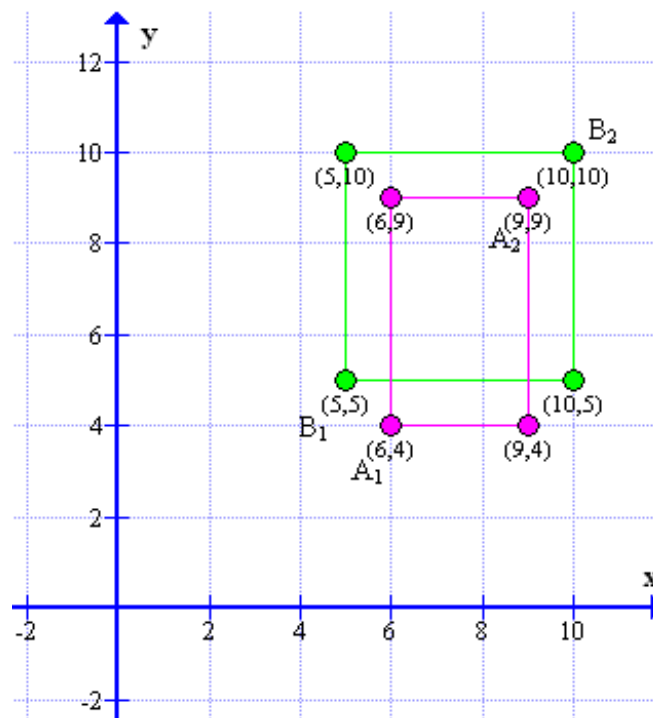
**Input:**

```
6 4 9 9 5 5 10 10
10 5 5 10 9 9 6 4
0 0 0 0 0 0 0 0
```

**Output:**

```
28
28
```

## Illustration to the 1st test



Special thanks to Rafał Spręga for the concept of this task.