



acm International Collegiate
Programming Contest



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PRACTICE PROBLEMS

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Hosted by:

**Florida Institute of Technology
Armstrong Atlantic State University
University of South Alabama**





A: Which is Greater?

Given two positive integers, determine whether the first one is larger than the second one.

Input

The input file consists of a number of test cases. Each case consists of two positive integers on a single line. The input ends with a line containing two 0's.

Output

Print a list of responses for the input cases, one per line. Print the word **Yes** if the first number is greater than the second, and **No** otherwise. Print these words exactly as shown. Do not print any blank lines between outputs.

Sample Input

```
1 19
4 4
23 14
0 0
```

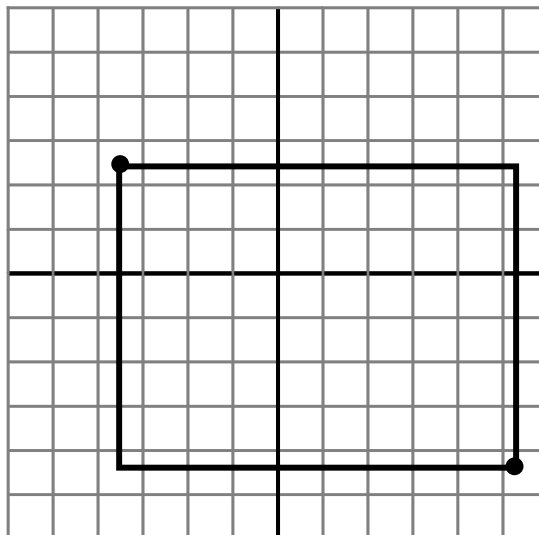
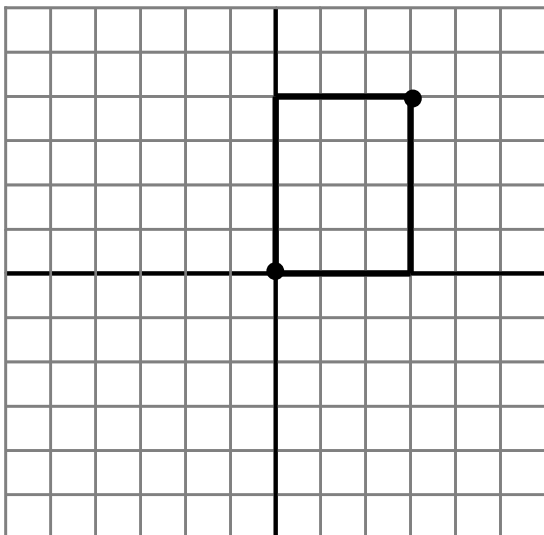
Sample Output

```
No
No
Yes
```



B: Rectangle Area

Given diagonal corners of a rectangle with sides parallel to the X and Y axes, compute its area.



Input

There will be several cases in the input. Each case will consist of four real numbers on a single line. These numbers represent:

$x1 \ y1 \ x2 \ y2$

Where $(x1, y1)$ and $(x2, y2)$ are diagonal corners of a rectangle.

All four numbers will be in the range from -100.0 to 100.0 , with $x1 \neq x2$, and $y1 \neq y2$. No rectangle will have an area smaller than 0.001 . End of input is a line with four 0.0 's. There will be no blank lines.

Output

Print the area of each rectangle rounded to (and displayed to) 3 decimal places. Print one answer per line. There should be no blank lines between outputs.

Sample input

```
0 0 3 4
5.2 -4.64 -3.47 2.2
0.0 0.0 0.0 0.0
```

Sample Output

```
12.000
59.303
```



C: Count the Vowels

Given lines of text, count the vowels! For this problem, the only vowels are A, E, I, O and U. No other letters will be considered vowels for the purposes of this problem.

Input

There will be multiple lines of data. The data will be ASCII text, with no special characters. There will be only letters, numbers, printable symbols, and spaces. There will be no control characters, and the only white space within a line will be the space character. Each line will have at least 1 and at most 80 ASCII characters, and each line is guaranteed to have at least one non-whitespace character. End of the input is a line with nothing but an *, which should not be processed.

Output

For each line of text, print the number of vowels as an integer, on its own line. Do not print any blank lines between outputs.

Sample Input

```
This is a test.  
How many vowels in "sky"?  
Are you sure you can handle both CAPITAL and lower case?  
D. J. Pike flung Q. V. Schwartz my box.  
*
```

Sample Output

```
4  
5  
20  
5
```