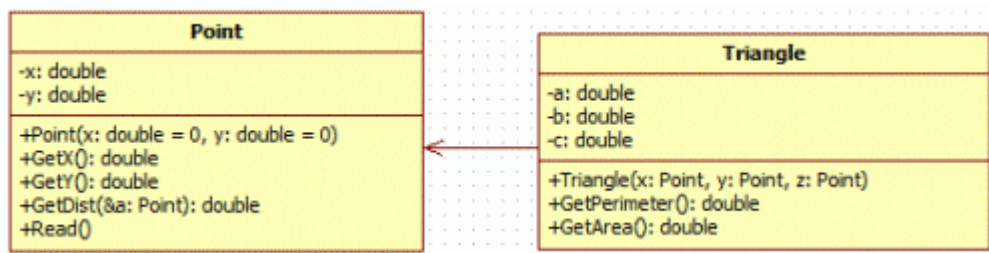


## Problem B. Perimeter and area of triangle

**Time limit** 1000 ms

**Mem limit** 131072 kB

The real numbers  $x[1]$  ,  $y[1]$  ,  $x[2]$  ,  $y[2]$  ,  $x[3]$  ,  $y[3]$  - the coordinates of triangle vertices are given. Find the perimeter and the area of a triangle.



### Input data

In one line the coordinates of triangle vertices are given: 6 numbers  $x[1]$  ,  $y[1]$  ,  $x[2]$  ,  $y[2]$  ,  $x[3]$  ,  $y[3]$  that do not exceed 100 by absolute value.

### Output data

Print in one line the perimeter and the area of a triangle. Print the answer with 4 decimal digits.

#### Sample 1

| Input          | Output          |
|----------------|-----------------|
| 3 2 7 6.5 10 1 | 19.3568 17.7500 |