[CS 11] Prac 0e – Bamboo

oj.dcs.upd.edu.ph/problem/cs11prac0e

Problem Statement

Bamboo has recently bought a new plot of land. He intends to use this land for activism.

The new plot of land has the shape of a *triangle* (or *tatsulok* in Filipino). We can represent this triangle in the 2D Cartesian plane; its corners have coordinates (x1,y1) (x_1 , y_1) , (x2,y2) (x_2 , y_2) and (x3,y3) (x_3 , y_3) .

Bamboo wants to know how many people he can fit inside the land—the more people, the more effective the demonstrations inside can be!

What is the area of Bamboo's new plot of land?

Note that the area may be zero.

Task Details

Your task is to implement a function called `tatsulok_area`. This function has six parameters `x1`, `y1`, `x2`, `y2`, `x3` and `y3` in that order, all `int`s, whose meanings are described in the problem statement. The function must return a `float` denoting the area of Bamboo's new plot of land.

Do **not** print anything on screen.

Example Calls

Example 1 Function Call

Copy

```
tatsulok_area(1, 1, 1, 4, 6, 1)
```

Example 1 Return Value

Copy

```
7.5
```

Example 2 Function Call

Copy

```
tatsulok_area(-5, 5, 0, 0, -5, -5)
```

Example 2 Return Value

Copy

```
25.0
```

Constraints

When the program is run:

- The function `tatsulok_area` will be called at most 10,00010,000 times.
- In each function call, each argument will have an absolute value at most 1,000,0001,000,000.
- The three corners are distinct.

Scoring

- You get 6060 ❤️ points if you solve all test cases where x1=x2$x_1 = x_2$.
- You get 6060 💔 points if you solve all test cases.

Thus, you can earn up to 120120 points from this problem.
Report an issue

Clarifications

No clarifications have been made at this time.