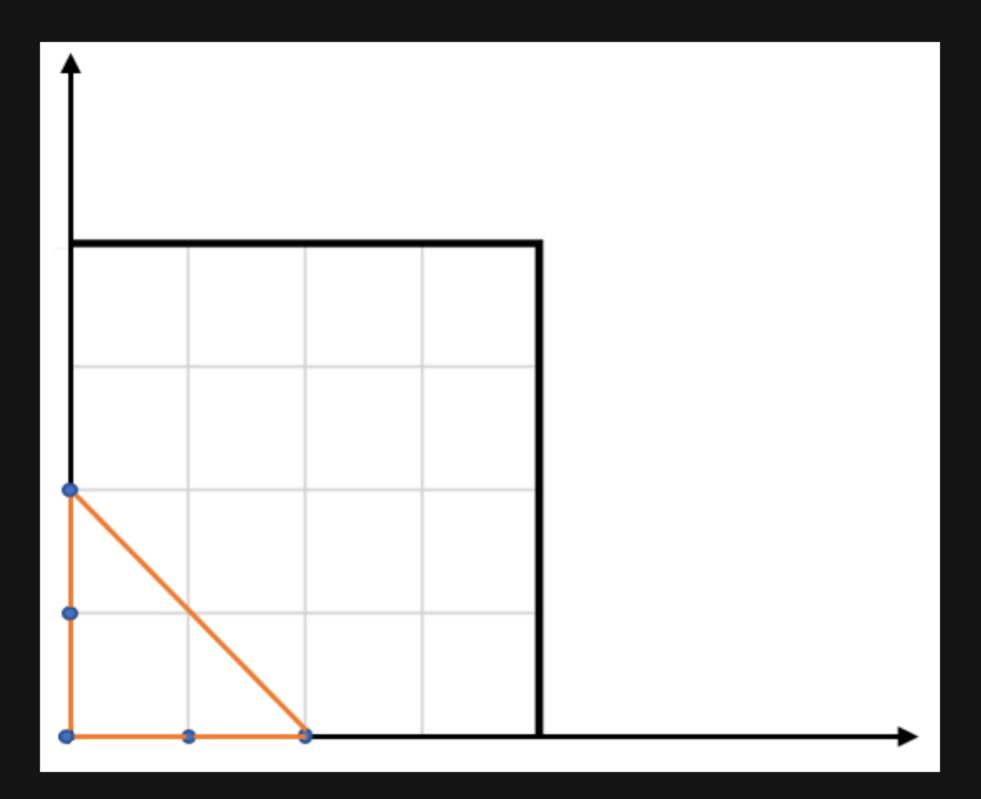
# 812. Largest Triangle Area

# Description

Given an array of points on the X-Y plane points where points[i] = [x<sub>i</sub>, y<sub>i</sub>], return the area of the largest triangle that can be formed by any three different points. Answers within  $10^{-5}$  of the actual answer will be accepted.

## Example 1:



```
Input: points = [[0,0],[0,1],[1,0],[0,2],[2,0]]
Output: 2.00000
Explanation: The five points are shown in the above figure. The red triangle is the largest.
```

### **Example 2:**

```
Input: points = [[1,0],[0,0],[0,1]]
Output: 0.50000
```

### **Constraints:**

- 3 <= points.length <= 50
- $-50 \ll x_i$ ,  $y_i \ll 50$
- All the given points are unique.