

## Area of Intersection of Polygons

You are given several simple polygons. Approximate the size of the area where all these polygons intersect.

**Input:** The first line of the input contains the number of polygons  $n$ . Then  $n$  lines follow. Each line  $i$  starts with the number of corners  $k_i$  of polygon  $i$  followed by  $k_i$  pairs of numbers  $a_{i,k_i}$ ,  $b_{i,k_i}$  that describe the coordinates of each corner. The polygon is constructed by connecting consecutive corners by lines and connecting the last corner to the first corner by a line.

You can assume that the coordinates of the corners are integers, and that it holds true that  $0 \leq a_{i,k_i}, b_{i,k_i} \leq 10$ .

**Output:** The size of the area where all  $n$  polygons intersect with a rounding error of at most 0.05.

**Sample Input:**

```
2
4 1 1 4 1 4 4 1 4
3 2 0 6 0 4 2
```

**Sample Output:**

```
0.5
```