Problem C. Empty Convex Polygons

Given a set of distinct points S on a plane, we define a convex hole to be a convex polygon having any of the given points as vertices and not containing any of the given points in its interior. In addition to the vertices, other given points may lie on the perimeter of the polygon. We want to find a convex hole as above forming the convex polygon with the largest area.

Input

This problem has several test cases.

The first line of input contains an integer t ($1 \leq t \leq 100$) indicating the total number of cases. For each test case, the first line contains the integer n ($3 \leq n \leq 50$). Each of the following n lines describes a point with two integers x and y where $-1000 \leq x, y \leq 1000$.

We guarantee that there exists at least one non-degenerated convex polygon.

Output

For each test case, output the largest area of empty convex polygon, with the precision of 1 digit.

Remark: The corollary of Pick's theorem about the polygon with integer coordinates in that says the area of it is either ends to .0 or .5.

Sample

4 3 0 0 1 0 0 1 5 0 0 1 0 2 0 0 1 1 1 5 0 0 3 0 4 1 3 5 -1 3 6 3 1 1 0 2 0 3 0 4 0 5 0	0.5 1.5 17.0 2.0