

**Task. Area of a convex polygon**

Given is a sequence of  $n$  vertices of a convex polygon in the plane. Vertices are ordered in clockwise or counterclockwise direction. Write program **convex** to compute the area of this convex polygon.

**Input:** On the first line, the number of the vertices is written. It follows the vertices of the polygon, written as a sequence of pairs of coordinate.

**Output:** Found area as a decimal value with exactly one digit in the fractional part.

**Constraints:**  $2 < n < 100$ ; the coordinates of the given points are positive integers, less than 100.

Example 1.

Input

3

0 0

0 1

1 1

Output

0.5

Example 2.

Input

4

0 0

1 1

0 1

1 0

Output

1.0