

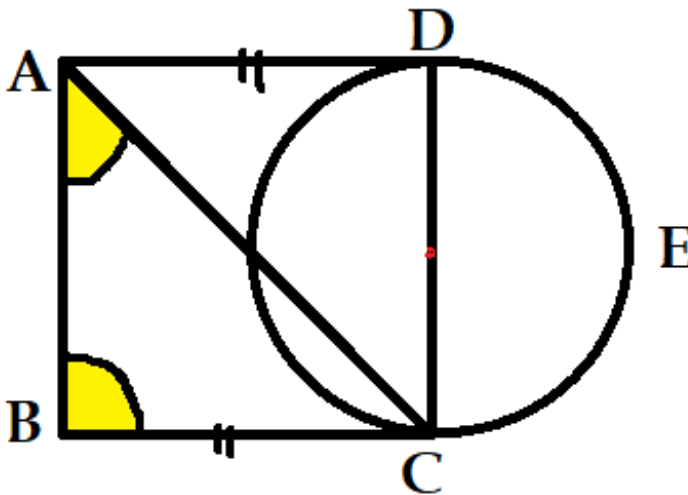
# Geometry

Farabi is good at Geometry.

And he loves to make challenge.

He gave two triangle ( ABC and CAD ) where there is a common side and two side are parallel to each other .

Here you can see the following figure for better realization.



## Input

You will be given angle BAC , ABC and side BC and AD .

Here,  $\pi = \text{acos}(-1.0)$

## Output

Find the area of the circle CDE . Your answer will be considered correct if the absolute difference between your and judge's solution will not differ more than  $10^{-6}$ .

## Example

**Input:**

10 30 40 50

**Output:**

19311.6239189261