

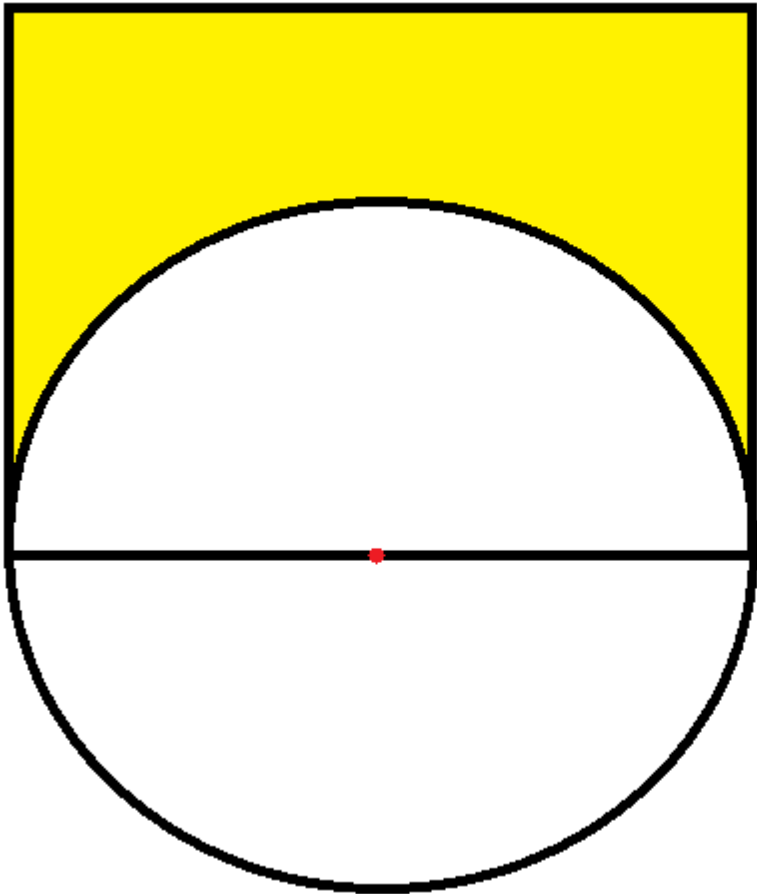
PROBLEMS SUBMIT CODE MY SUBMISSIONS STATUS STANDINGS CUSTOM INVOCATION

B. Geometry ? i hate it :(

time limit per test: 1 s.  
memory limit per test: 4 MB  
input: standard input  
output: standard output

After the last contest I wish you studied more and more geometry laws.

A simple problem for you given a square located on the diameter of the cycle as shown in figure and  $R$  the radius of the cycle can you find the area of the yellow part ?



Input

The only line of the input contains one number  $R$  ( $1 \leq R \leq 10^9$ ).

Output

print the area of the yellow part with 4 digits after the decimal point.

Examples

input	Copy
5	
output	Copy
60.7301	

input	Copy
2	
output	Copy
9.7168	

Note

All circles are equal

PI = 3.1415926535

ICPC Assiut Advanced Newcomers 2023

Private

Participant

→ Group Contests

ICPC Assiut Advanced Newcomers 2023 Contest 5

ICPC Assiut Advanced Newcomers 2023 Contest 4

ICPC Assiut Advanced Newcomers 2023 Contest 3

ICPC Assiut Advanced Newcomers Practice #1

ICPC Assiut Advanced Newcomers 2023 Contest 2

ICPC Assiut Advanced Newcomers 2023 Onsite Contest 2

ICPC Assiut Advanced Newcomers 2023 Contest 1

ICPC Assiut Advanced Newcomers 2023 Onsite Contest 1

ICPC Assiut Advanced Newcomers 2023 Contest 3

Finished

Practice

→ Virtual participation

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

Start virtual contest

→ Submit?

Language: GNU G++20 11.2.0 (64 bit, w

Choose file: Choose File No file chosen

Submit

Submission	Time	Verdict
227210022	Oct/08/2023 17:34	Accepted
227209887	Oct/08/2023 17:33	Compilation error