

Problem D. Intersection of Parabolas

Input file: *standard input*
Output file: *standard output*
Time limit: 1 second
Memory limit: 256 mebibytes

Find the area of the region bounded by the following two parabolas: $y = (x - a)^2$ and $x = (y - a)^2$.

Input

The first line contains a single integer a ($1 \leq a \leq 10^{18}$).

Output

Print the answer to the problem with **exactly** 10 digits after the decimal point, using the standard rounding rules.

Example

standard input	standard output
2	7.6666666667