C. Odds of Oddness

time limit per test: 1 second

memory limit per test: 256 megabytes

input: standard input

output: standard output

Given is an integer N.

Karemo chooses an integer A from 1 to N with equal probability.

Find the probability that A is odd.

Input

Only one integer N $(1 \leq N \leq 10^{12})$.

Output

Print the probability that A is odd.

Note: you must print 6 digits after the decimal point.

Examples

input	Copy
4	

output	Copy
0.500000	

input	Copy
5	

output	Copy
0.600000	

input	Copy
1	

output	Copy
1.000000	