E. Spider Man Festival

time limit per test: 1 second
memory limit per test: 256 megabytes
input: standard input
output: standard output

After Spider-Man has join the marvel team, they made a big festival for him. They ordered many pizza because most of them like it. Unfortunately, Hulk who is one of the team members was very hungry. Therefore, he ate all the pizza except one. Unlikely, it was 2 AM so they couldn't order pizza again.

However, Tony Stark suggested to divide the pizza to get n slices. He wants the slices to be exactly **the same size and shape**. If he couldn't, some of the attendance will get mad and go home without eating.

All the heroes were very hungry. Therefore, He wants to cut the pizza with **minimum** of straight cuts. A cut is a straight segment, it might have ends **inside** or **outside** the pizza.

Can you help Tony Stark to find the minimum number of straight cuts.

Input
Only one line contains an integer n ($1 \le n \le 10^{18}$) — the number of slices needed.

NOTE: The circular pizza has to be sliced into n pieces.

Output
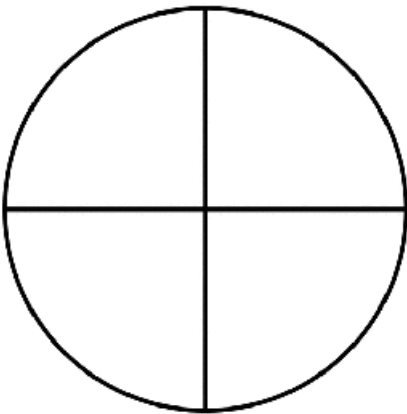A single integer — the number of straight cuts Tony Stark needs

Examples

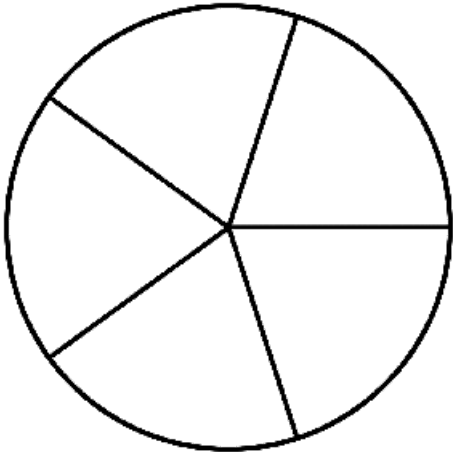| input	Copy
4	

output	Copy
2	

input	Copy
5	

output	Copy
5	

Note
To cut the round pizza into quarters one has to make two cuts through the center with angle 90◦ between them.

To cut the round pizza into five equal parts one has to make five cuts.