A. Calculating Function

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

For a positive integer n let's define a function f:

$$f(n) = -1 + 2 - 3 + ... + (-1)nn$$

Your task is to calculate f(n) for a given integer n.

Input

The single line contains the positive integer n ($1 \le n \le 1015$).

Output

Print f(n) in a single line.

Examples

input

Сору



output

Copy

2

input

Сору

5

output

Copy

-3 Note

$$f(4) = -1 + 2 - 3 + 4 = 2$$

$$f(5) = -1 + 2 - 3 + 4 - 5 = -3$$