

A. Dreamoon and Stairs

time limit per test

1 second

memory limit per test

256 megabytes

input

standard input

output

standard output

Dreamoon wants to climb up a stair of n steps. He can climb 1 or 2 steps at each move.

Dreamoon wants the number of moves to be a multiple of an integer m .

What is the minimal number of moves making him climb to the top of the stairs that satisfies his condition?

Input

The single line contains two space separated integers n, m ($0 < n \leq 10000, 1 < m \leq 10$).

Output

Print a single integer — the minimal number of moves being a multiple of m . If there is no way he can climb satisfying condition print - 1 instead.

Examples

input

```
10 2
```

output

```
6
```

input

```
3 5
```

output

```
-1
```

Note

For the first sample, Dreamoon could climb in 6 moves with following sequence of steps: {2, 2, 2, 2, 1, 1}.

For the second sample, there are only three valid sequence of steps {2, 1}, {1, 2}, {1, 1, 1} with 2, 2, and 3 steps respectively. All these numbers are not multiples of 5.