Description

Given an integer n, print the value of n mod 3 as an integer between 0 and 2.

Input

The input consists of a single line containing a single integer n that lies between -10^9 and 10^9.

Output

A single line (ending with a newline) containing the value of n mod 3, lying between 0 and 2.

Sample Input 1

```
17
```

Sample Output 1

```
2
```

Sample Input 2

```
-5
```

Sample Output 2

```
1
```

Sample Input 3

```
-9
```

Sample Output 3

```
0
```