

Hidden Digits

Input file: **standard input**
Output file: **standard output**
Time limit: 1 second
Memory limit: 256 megabytes

There's a hidden string of digits (from 0 to 9) of length N ($1 \leq N \leq 18$). You want to find out whether there's a substring of any size inside this hidden number that is divisible by 3.

You are allowed to ask **up to 2 queries** of the following format: "? i ", which tells you the digit at the requested index i ($1 \leq i \leq N$).

Input

The first line contains the integer N , the length of the hidden string.

Interaction Protocol

You're allowed a maximum of 2 queries of the following format: "? i "

After making a query, you get a single line containing a digit from 0 to 9 indicating the digit at the index i in the hidden string.

To make an answer, output a single line containing "! 1" if there's a substring that's divisible by 3. Otherwise, "! 0".

Example

standard input	standard output
2	? 1
6	? 2
8	! 1