Problem

The easiest “Guess the Number” Task in the Universal Cup

Time limit: 1 seconds

This is an interactive problem.

Little Cyan Fish has a secret integer a ($1 \leq a \leq 100$). You need to find this integer.

In one query, you choose an integer x. Little Cyan Fish tells you whether x equals his secret integer. Find the secret integer in at most 100 queries.

Interaction Protocol

To make a query, print a line in the following format: “`?` x”, where x is an integer ($1 \leq x \leq 100$). As a response to the query, you will get a single word `yes` or `no`, meaning that $x = a$ or $x \neq a$, respectively. You must ensure that the number of queries you make does not exceed 100.

To report the answer, output a line in the following format: “`!` x”, where x is the secret integer. Reporting the answer does not count as a query. Receiving `yes` does not finish the interaction: you must still report the answer. Your program must terminate immediately after reporting the answer. After outputting a query or reporting the answer, do not forget to output a newline character and flush the output stream.

In this problem, the interactor is not adaptive. The secret integer is fixed before the interaction begins and does not change during the interaction.

Read	Sample Interaction 1	Write
	`? 1`	
`no`		
	`? 2`	
`no`		
	`? 3`	
`yes`		
	`! 3`	

In the first sample, the secret integer is 3. The queries with $x = 1$ and $x = 2$ receive `no`, and the query with $x = 3$ receives `yes`. The solution then reports `! 3`.

In the second sample, the secret integer is 1. The first query receives `yes`, and the solution reports `! 1`.

Testing Tool: A testing tool is provided to help contestants develop and test their solutions. You can download this tool from the attachments. Executing the tool with the `-h` option describes how to use it. The tool checks the interaction and the reported answer, but does not enforce the time or memory limit.