

Z Guessing Game

Time limit: 1s

The jury decided to not give away the answer to this problem. Instead, you will have to guess. For each testcase, the answer is a number between 1 and 1000, inclusive. After each guess, we will tell you whether your guess was correct, too low, or too high.

To not make this problem too difficult (it is a test session problem, after all), it has been decided that you may use at most 1000 guesses to guess the answer.

Interaction

This is an interactive problem. Your submission will be run against an *interactor*, which reads the standard output of your submission and writes to the standard input of your submission. This interaction needs to follow a specific protocol:

Your program should make at most 1000 guesses. For each guess, your program should print an integer x ($1 \leq x \leq 1000$), the number you want to guess. The interactor will respond with a single line containing one of the following three sentences:

- “That is correct!” if you guess the answer. If so, your submission should exit.
- “Your guess is too high.” if your guess is higher than the answer.
- “Your guess is too low.” if your guess is lower than the answer.

If your program did not guess the answer after 1000 guesses, it will be terminated and receive a wrong answer.

Reading more input after receiving “That is correct!” will result in a time limit exceeded and printing more output will result in a wrong answer.

Make sure you flush the buffer after each write.

A testing tool is provided to help you develop your solution.

Read**Sample Interaction 1****Write**

792

Your guess is too low.

999

Your guess is too high.

990

Your guess is too low.

995

That is correct!

Read**Sample Interaction 2****Write**

42

That is correct!