Problem A. Sum of Two

Input file:	`sum.in`
Output file:	`sum.out`
Time limit:	2 seconds
Memory limit:	512 mebibytes

Calculate the sum of two integers.

Input

The first line contains only two integers A and B which are not greater than 1 000 by an absolute value.

Output

Your program must write the result of $A + B$ calculation to the output file.

Examples

sum.in	sum.out
2 3	5
17 -18	-1

Problem B. Product of Two

Input file:	*standard input*
Output file:	*standard output*
Time limit:	2 seconds
Memory limit:	512 mebibytes

Multiply two integer numbers. Be sure you have selected an appropriate integer type ('`long long`' in C/C++) to store the result! Note that if you are using printf/scanf, "`%Ld`" format must be used for reading/writing signed 64-bit integers (and "`%Lu`" for unsigned).

Input

Input file consists of only two integers A and B. They do not exceed 10^9 by an absolute value.

Output

Your program must write a single number which is the product of integers A and B.

Example

standard input	standard output
2 2	4

Problem C. Real Quotient of Two

Input file:	*standard input*
Output file:	*standard output*
Time limit:	2 seconds
Memory limit:	512 mebibytes

Divide two integers and print the result as real number.

Input

Input file consists of two positive integers A and B. They do not exceed 100 by an absolute value.

Output

Your program must write a single number which is the quotient of division A by B. Your answer will be considered correct, if it will differ from correct one on 0.01 or less.

Examples

standard input	standard output
4 2	2.0
2 3	0.667

Problem D. Guess the Number

Input file:	*standard input*
Output file:	*standard output*
Time limit:	2 seconds
Memory limit:	512 mebibytes

This is an interactive problem.

Somebody has secretly set the number x ($1 \le x \le n$). Your program has to guess this number interacting with the testing system. There are two kinds of queries:

1. ? y ($1 \le y \le n$) — the result is either string "`>=`" which means that $x \ge y$, or string "`<`" which means that $x < y$ (without quotes)
2. ! y ($1 \le y \le n$) — should be called once when your program is about to terminate. All output after it is ignored. You must make this call to tell the system the number you discovered (i. e., $x = y$).

Input

Input starts with a line with single integer $1 \le n \le 10^9$. After it there will follow separate lines with answers to queries in form ? y.

Output

Output queries one per line, as specified in the statement. The total number of queries of the first type must not be greater than binary logarithm of n rounded up, otherwise you will get "`Wrong answer`". Do not forget to flush the output after each query.

Example

standard input	standard output
16	? 9
<	? 5
>=	? 7
<	? 6
>=	! 6

Problem E. Samples ZIP

Input file:	*standard input*
Output file:	*standard output*
Time limit:	2 seconds
Memory limit:	512 mebibytes

This problem have only one test. Print the sum of integers in the sample input and the sample output. To upload samples for the current contest, use "`Samples ZIP`" tab in contest management system interface.

Input

Input file consists of one integer.

Output

Output file must contain of sum of integers in the sample input and the sample output.

Problem F. Summary

Input file:	*standard input*
Output file:	*standard output*
Time limit:	?? milliseconds
Memory limit:	??? mebibytes

This problem have only one test. Print the sum of the time limit (in milliseconds) and memory limit (in mebibytes) for this problem. To check actual limits in the system, use "`Summary`" tab in contest management system interface.

Input

This problem have no input.

Output

Output file must contain one integer — the required sum.