Problem A. More and more

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

Find the number of numbers that is greater than the previous number.

Input

Read numbers until 0.

Output

Single number.

Examples

standard input	standard output
1 7 9 0	2
1 2 3 1 4 0	3

Problem B. Lucky number

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

Almaz considers that the lucky number to be when the sum of the first two numbers and the sum of the last two numbers are equal. Create a code for him so that he does not think a lot.

Input

You are given 6-digit number n ($10^6 <= n <= 10^7 - 1$)

Output

print "YES"if it's lucky number, else "NO"

Examples

standard input	standard output
123421	YES
543409	YES
123456	NO
859138	NO

Problem C. Length between two pooints

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

Two points on the plane are given. It is required to calculate the length of the segment between the points. Calculate answer exactly 10 digits after the decimal point.

Input

The only line contains the coordinates of the ends of the segment in the format X1 Y1 X2 Y2. All coordinates are integers and less than 1000.

Output

Print answer exactly 10 digits after the decimal point.

Examples

standard input	standard output
3 4 8 4	5.0000000000
0 0 3 4	5.0000000000

Problem D. Division and remainders

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

Schoolboy Vanya decided to do his FEE homework. He was given a very difficult task, few people can cope with it. But you will help him. You are given two numbers a and b. You should output three answers: usual division a on b, division without remainder a on b, remainder a on b.

Input

Two integers a,b (1<=a,b<=1000).

Output

First line: "Usual division: "+ answer. Second line: "Division without remainder: "+ answer. Third line: "Remainder: "+ answer.

Examples

standard input	standard output
5 2	Usual division: 2.5 Division without remainder: 2 Remainder: 1
6 2	Usual division: 3 Division without remainder: 3 Remainder: 0
11 3	Usual division: 3.66667 Division without remainder: 3 Remainder: 2
23 15	Usual division: 1.53333 Division without remainder: 1 Remainder: 8
2 2	Usual division: 1 Division without remainder: 1 Remainder: 0

Problem E. Sum of digits in number

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

One day Ioann decided to go to the store and buy something. He can buy 1,2 or 3 goods. Ioann received a check with the sum n. Each digit in number n represents the price of the each item. How much should Ioann pay?

Input

Number n (0<=n<1000).

Output

Sum of the purchase - integer.

Examples

standard input	standard output
454	13
589	22
625	13
631	10
976	22

Problem F. Ali and cafe

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

One day Ali decided to go to a cafe and order drinks and food there. He has d dollars and c cents. He ordered something with a cost of p cents, he ordered it n times. How much money Ali will have left, or what debt he will have.

Input

First line: integers d, c. (0<=d,c<=100). Second line: integers p, n. (0<p<=10000),(0<n<=100).

Output

Numbers: dollars and cents separately.

Examples

standard input	standard output
2 50 200 1	0 50
2 50 30 2	1 90
3 0 50 3	1 50
0 50 50 6	-2 -50
31 42 7005 57	-3961 -43

Note

100 cents - 1 dollar.

Problem G. Sum and Average

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

Help Bakdaulet to find the average number of input numbers and the sum of these numbers.

Input

The first input is an integer n, after n the number of integers

Output

The output should be the average number and amount. the average number may not be an integer.

Examples

standard input	standard output
3 1 2 1	Average: 1.33333 Sum: 4
5 10 20 30 40 50	Average: 30 Sum: 150

Problem H. Bishop

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

We all know the famous game of chess. Help Bakdaulet win the game with Daniil. Both have one figure left. Bagdaulet still has the Bishop figure. You need to determine if the Bagdaulet figure can eat the Daniils figure if we know the coordinates.

Input

Given four integers a,b,c and d. (1<= a,b,c,d <= 8).

Output

print Won or Lose.

Examples

standard input	standard output
1 1 5 5	Won
3 2 2 2	Lose

Problem I. Does a triangle exist?

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

Given three natural numbers a, b, c, written in separate lines. You need to check whether there is a triangle with such sides.

Input

Write integer a,b,c.

Output

Output Yes or No.

Examples

standard input	standard output
3 4 5	Yes
11 10 15	Yes

Problem J. Daniil and the Bank.

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

Daniil decided to make a contribution to the Bank T tenge. Every year it increases by P percent, after which the fractional part of the tiyn is discarded. Each year, the Deposit amount becomes larger. Determine how many years the Deposit will be at least Y tenge.

Input

The program receives three natural numbers as input: T, P, and Y.

Output

The program should output a single integer.

Example

standard input	standard output
100 10 200	8

Problem K. Just sum it

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

Easy problem for you. You are given number N. Sum the N, previous number N, next number N.

Input

Number N (-10000000<=N<=10000000).

Output

Sum.

Examples

standard input	standard output
1	3
2	6
100	300
1000	3000
0	0

Problem L. How long have I been here?

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

Is time relative or not? I've already counted N seconds, I wonder how much time has passed since I started. Help me create something like a clock. I hope you can do it.

Input

Integer N(0<=N<=1000000) - seconds.

Output

Output: hours:minutes:seconds.

Examples

standard input	standard output
0	0:0:0
23	0:0:23
60	0:1:0
3665	1:1:5
232323	64:32:3

Problem M. Experience for what?

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

Daniil again decided to dive into game development. He decided to entrust you with one easy task. You need to calculate the amount of experience that the hero will have the next day. At the moment, the hero has n experience, and m percent will be added the next day.

Input

Two integers n (0<=n<=10000) - experience, and m (0<=m<=10000) - percent.

Output

One number is the total experience for the next day.

Examples

standard input	standard output
118 41	166.38
404 24	500.96
797 28	1020.16
758 18	894.44
221 75	386.75

Problem N. Telephone bills

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	255 megabytes

Adilkhan, Kymbat and Ali wanted to calculate how much money goes to pay for telephone services. Telephone network services are paid according to the following rule: for calls up to A minutes per month - B rubles per minute, and calls in excess of the established rate are paid at the rate of C rubles per minute. It is required to write a program that calculates the bill for using the telephone for conversations lasting T minutes per month.

Input

First line contains 4 integer: A,B,C,T (1<=A<=B<=C<=T<=1000)

Output

Write only one integer: monthly fee for using the telephone.

Examples

standard input	standard output
30 2 3 30	60
20 1 3 30	50

Problem O. +, - , * , -

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

You need to create a mini calculator.

Input

Integer a,b,symbol x.

Output

Outputs as shown in the example

Examples

standard input	standard output
`1 + 1`	`1 + 1 = 2`
`2 - 3`	`2 - 3 = -1`
`3 * 3`	`3 * 3 = 9`
`16/4`	`16 / 4 = 4`