

Submit a solution for 101-37267. A+B

Time limit: 2 s

Real time limit: 5 s

Memory limit: 64M

Problem 101: 37267. A+B

You are given two integers a and b . Print $a + b$.

Input format

The only line of the input contains integers a and b ($-10000 \leq a, b \leq 10000$).

Output format

Print $a + b$.

Examples

Input

```
1 2
```

Output

```
3
```

Input

```
3 5
```

Submit a solution for 102-466082. A-B

Time limit: 2 s

Real time limit: 5 s

Memory limit: 64M

Problem 102: 466082. A-B

You are given two integers a and b . Print $a - b$.

Input format

The only line of the input contains integers a and b ($-10000 \leq a, b \leq 10000$).

Output format

Print $a - b$.

Examples

Input

```
2 1
```

Output

```
1
```

Input

```
1 2
```

Submit a solution for 103-466085. Rectangle Area

Time limit: 1 s

Real time limit: 5 s

Memory limit: 256M

Problem 103: 466085. Rectangle Area

You are given the length and width of a rectangle, a and b , as integer numbers. Your task is to calculate the area of the rectangle.

Input format

Two integer numbers a and b , representing the length and width of the rectangle ($1 \leq a, b \leq 1000$).

Output format

Output one integer number: the area of the rectangle.

Examples

Input

```
3 4
```

Output

```
12
```

Input

```
7 5
```

Submit a solution for 104-466090. Rectangle Width

Time limit: 1 s

Real time limit: 5 s

Memory limit: 256M

Problem 104: 466090. Rectangle Width

You are given the area and length of a rectangle, a and b , as integer numbers. Your task is to calculate the width of the rectangle.

Input format

Two integer numbers a and b , representing the area and length of the rectangle ($1 \leq a, b \leq 10^6$).

Output format

Output one integer number: the width of the rectangle.

Examples

Input

12 4

Output

3

Input

35 5

Submit a solution for 105-414767. Calculate remainder

Time limit: 1 s

Real time limit: 5 s

Memory limit: 256M

Problem 105: 414767. Calculate remainder

Given two positive non-zero integers a and b , output the remainder of a divided by b .

Input format

Two integers a and b , separated by a space ($1 \leq a, b \leq 100$).

Output format

One number — the remainder of a divided by b .

Examples

Input

```
5 2
```

Output

```
1
```

Input

```
4 2
```

Submit a solution for 106-414614. First and last digit

Time limit: 1 s

Real time limit: 5 s

Memory limit: 256M

Problem 106: 414614. First and last digit

Given a 3-digit integer n , output its first and last digits.

Input format

One integer n , ($100 \leq n \leq 999$).

Output format

Two digits, separated by a space - the first and the last digit of n .

Examples

Input

```
123
```

Output

```
1 3
```

Input

```
987
```

Submit a solution for 107-414778. Separate with a pipe

Time limit: 1 s

Real time limit: 5 s

Memory limit: 256M

Problem 107: 414778. Separate with a pipe

Given two integers a and b , output them separated by a pipe symbol - `|`.

Input format

Two integers a and b , separated by a space ($-100 \leq a, b \leq 100$).

Output format

Integers a and b , separated by a pipe.

Examples

Input

```
5 2
```

Output

```
5|2
```

Input

```
-4 2
```

Submit a solution for 108-417094. Exchange Two Values

Time limit: 1 s

Real time limit: 5 s

Memory limit: 256M

Problem 108: 417094. Exchange Two Values

You are given two variables, a and b . Write a program to exchange (swap) the values of a and b . After the exchange, a should hold the value of b , and b should hold the value of a .

Important: do not use `swap()` or solutions like `cout << b << ' ' << a << endl`; — you need to swap the values in a different way.

Input format

Two integer numbers — values of a and b ($-100 \leq a, b \leq 100$)

Output format

Output the values of a and b after the exchange, separating them with a space.

Examples

Input

```
1 2
```

Output

```
2 1
```


Submit a solution for 109-78567 Almaz's work

Time limit: 1 s

Real time limit: 5 s

Memory limit: 256M

Problem 109: 78567 Almaz's work

Almaz dug up h meters of hollow in m hours. How many meters will Almaz dig up in t hours.

Input format

Input contains integers h , m and t . ($1 \leq h \leq 1000$, $1 \leq m \leq 1000$, $1 \leq t \leq 1000$).

Output format

Output the answer to the problem.

Examples

Input

```
10 5 2
```

Output

```
4
```

Submit a solution

Submit a solution for 110-78556 Programing language

Time limit: 1 s

Real time limit: 5 s

Memory limit: 256M

Problem 110: 78556 Programing language

Given number of n students in class who knows c++, number of m students who knows python and total number of t students in the class. Find how many students knows both programing languages if there is no student in class who don't know any of this two languages.

Input format

The only input line contains the integers n , m and t separated with a space $1 \leq n \leq m \leq k \leq 1000$

Output format

Output contains single integer.

Examples

Input

```
28 17 38
```

Output

```
7
```