### 1. Reverse Game

## **Problem Description**

Write a program that accepts  $\mathbf{T}$  numbers( $\mathbf{N}$ ) from the user and find reverse of the given number( $\mathbf{N}$ ).

#### **Problem Constraints**

```
1 <= T <= 100
1 <= N <= 100000000
```

# **Input Format**

First line is **T** which means number of test cases.

Each next N lines contain an integer N.

# **Output Format**

**T** lines each containing reverse of the input integer.

# **Example Input**

```
Input 1:

2
101
105

Input 2:
```

# **Example Output**

```
Output 1:

101
501

Output 2:

1
```

# **Example Explanation**

# Explanation 1:

Reverse(101)=101 Reverse(105)=501

# Explanation 2:

Reverse (100) = 001=1

# 2. Palindromic Integer

## **Problem Description**

Take an integer **A** as input, determine whether it is palindromic or not.

A palindrome integer is an integer X for which reverse(X) = X where reverse(X) is X with its digits reversed. For e.g., reverse(123) = 321. **Note**: There will be **no** zeros at the start of a number.

#### **Problem Constraints**

1 <= A <= 10<sup>6</sup>

### **Input Format**

First and the only line contains a single integer **A**.

## **Output Format**

Print **Yes** if it is palindromic, else print **No**.

### **Example Input**

Input 1:			
120			
Input 2:			
1001			
Input 3:			
131			

## **Example Output**

Output 1:			

```
Output 2:
Yes
Output 3:
Yes
```

## **Example Explanation**

## Explanation 1:

```
For A = 120, reverse(A) = reverse(120) = 021 = 21 (removing leading zeroes). 120 is not equal to 21
```

## Explanation 2:

```
For A = 1001, reverse(A) = reverse(1001) = 1001, which is same as A.
```

## Explanation 3:

```
For A = 131, reverse(A) = reverse(131) = 131, which is same as A.
```

# 3. For loop-2 MCQ

A Highest Common Factor (HCF) of a,b is defined as \_\_\_\_\_.

Choose one from below:

- A. It is the smallest integer divisible by both a and b
- B. It is the greatest integer divisor of both a and b
- C. It is the sum of the number a and b
- D. None of the above

### 4. HCF using Loop

### **Problem Description**

Write a program to input an integer **T** which represents the number of test cases. For each test case input two integers **A** and **B** in two different lines. For each pair of A and B print the HCF of the given two numbers.

### **Problem Constraints**

```
1 <= T <= 1000
1 <= A,B <= 1000000
```

### **Input Format**

The first line of input contains **T** which means number of test cases.

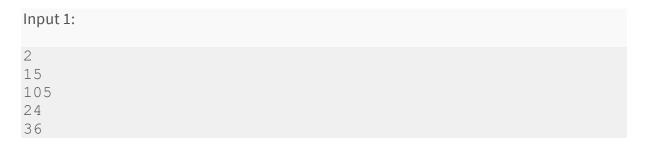
Next **2T** lines contains input **A** and **B** for each testcase.

First line of each testcase contain an integer **A** and second line of the testcase contains input **B**.

#### **Output Format**

**T** lines each containing an integer representing HCF of A & B.

### **Example Input**



### **Example Output**

```
Output 1:

15
12
```

# 5. Least Common Multiple (Asked in- SAP Labs)

#### **Problem Description**

Write a program to input an integer T and then for each test case input two integers A and B in two different lines and then print T lines containing Least Common Multiple (LCM) of two given 2 numbers A and B.

LCM of two integers is the smallest positive integer divisible by both.

#### **Problem Constraints**

1 <= T <= 1000

1 <= A,B <= 1000

#### **Input Format**

The first line contains T which means number of test cases.

Next 2T lines contains input A and B for each testcase.

First line of each testcase contain an integer A and second line of the testcase contains input B.

#### **Output Format**

T lines each containing an integer representing LCM of A & B.

#### **Example Input**

#### **Example Output**

Output 1:

6

18

6

## **Example Explanation**

### Explanation:

In first testcase 6 is the smallest positive integer which is divisible by both 2 (2 \* 3 = 6) and 3 (3 \* 2 = 6).

In second testcase 18 is the smallest positive integer which is divisible by both 9 (9 \* 2 = 18) and 6 (6 \* 3 = 18).

In third testcase 6 is the smallest positive integer which is divisible by both 2 (2 \* 3 = 6) and 6 (6 \* 1 = 6).