

WEEK - 1

Search:

1. You are given an integer array of size N and a key value X. You have to find whether the key is present in the array or not. If present print the index else print -1

constrains:

$$0 < N \leq 50$$

Input format:

The first line contains two space separated integers n and x. Where n is the size of the array and x is the target element that is to be found.

The second line contains n space separated integers containing the array elements.

Output format:

The output should contain a single integer containing the index of the target element or -1 if not found.

Sample input:

6 7

1 3 5 6 7 9

Sample output:

4

Factorial

2. You are given a positive integer N. You have to find the factorial of the number.

constrains:

$$0 < N \leq 50$$

Input format:

The input contains a single integer n.

Output format:

The output contains a single integer containing the factorial of 'n'.

Sample input:

5

Sample output:

120

Even Array:

3. You are given an array of size N .You have to print the elements of the array in the Even index of the array.

constrains:

$$0 < N \leq 50$$

Input format:

The first line of the input contains an integer 'n' denoting the size of the array.

The second line contains n space separated integers containing the array elements.

Output format:

The output should contain the elements that are present in the even index in the given array.

Sample input:

5

1 2 3 4 5

Sample output:

1 3 5

Brake the number:

4. You are given a positive integer N .You have to find the one's and tens's place digit of the number.

constrains:

$$0 \leq N \leq 9999999999$$

Input format:

The input contains a single integer

Output format:

The output should contain the ones and tens digits.

Sample input:**Sample output:**

Armstrong number:

5. Given an integer, find whether it is an armstrong number or not.

Armstrong number is a number that is equal to the sum of cubes of its digits. For example 0, 1, 153, 370, 371 and 407 are the Armstrong numbers.

$$153 = (1*1*1) + (5*5*5) + (3*3*3)$$

where:

$$(1*1*1) = 1$$

$$(5*5*5) = 125$$

$$(3*3*3) = 27$$

So:

$$1 + 125 + 27 = 153$$

Input format:

The input contains a single integer

Output format:

The output contains true if the given number is an armstrong number else false.

Sample input:

371

Sample output:

true