# Prework Assignment

**Question 1 : First Letter Printer**

You are provided with a string.
Your task is to create a string with the first letter of every word in the string.

**Sample Test Case**
Input:
great learning
Output:
gl

**Test case 1**
Input:
When nothing goes right, go left.
Output:
Wngrgl

**Test case 2**
Input:
change the world by being yourself.
Output:
ctwbby

**Test case 3**
Input:
dream without fear. Love without Limits.
Output:
dwfLwL

**Stub code**

```
import java.util.Scanner;

class FirstLetterPrinter {
        public static void main (String[] args) {
            Scanner in = new Scanner(System.in);
            String input = in.nextLine();
                System.out.println(firstLetterPrinter(input));
        }
        static String firstLetterPrinter(String str) {
      // write your code here

   }
}
```

# Prework Assignment

**Question 2: Find Missing Number**

You are provided with an array of the size n-1. It contains distinct integers in the range of 1 to n. Your task is to find the missing number.

**Input format:**
Line 1 will take the value of n.
Line 2 will take the array's contents where numbers will be in the 1-n range.

**Sample Test case:**
5
1 2 3 4
Output:
4

**Test case 1**
Input:
10
1
2
3
4
5
6
7
8
9
Output:
10

**Test case 2**
Input:
7
1
3
4
5
6
7
Output:
2

**Test case 3**

# Prework Assignment

Input:
6
1
2
3
5
6
Output:
4

**Stub code**

```
import java.util.Scanner;

class MissingNumberFinder {
  public static void main(String[] args) {
    Scanner in = new Scanner(System.in);
    int size = in .nextInt();
    int[] arr = new int[size-1];
    for(int i=0;i<size-1;i++)
        arr[i] = in.nextInt();
    System.out.println(missingNumberFinder(arr, size));
  }

  static int missingNumberFinder(int array[], int n) {
        // write your code here
  }
}
```

# Prework Assignment

**Question 3: Pattern Printer**

Your task is to print the following patter for a given n value.
For n=2,
pattern is:
2 2 1 1
2 1

For n=3
pattern is:
3 3 3 2 2 2 1 1 1
3 3 2 2 1 1
3 2 1

**Sample Test Case**
Input:
2
Output:
2 2 1 1
2 1

**Test case 1**
Input:
5
Output:
5 5 5 5 5 4 4 4 4 4 3 3 3 3 3 2 2 2 2 2 1 1 1 1 1
5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1
5 5 5 4 4 4 3 3 3 2 2 2 1 1 1
5 5 4 4 3 3 2 2 1 1
5 4 3 2 1

**Test case 2**
Input:
0
Output:

**Test case 3**
Input:
7
Output:

# Prework Assignment

7 7 7 7 7 7 7 6 6 6 6 6 6 5 5 5 5 5 5 5 4 4 4 4 4 4 4 3 3 3 3 3 3 3 2 2 2 2 2 2 2 1 1 1 1 1 1 1
7 7 7 7 7 7 6 6 6 6 6 6 5 5 5 5 5 5 4 4 4 4 4 4 3 3 3 3 3 3 2 2 2 2 2 2 1 1 1 1 1 1
7 7 7 7 7 6 6 6 6 6 5 5 5 5 5 4 4 4 4 4 3 3 3 3 3 2 2 2 2 2 1 1 1 1 1
7 7 7 7 6 6 6 6 6 5 5 5 5 5 4 4 4 4 4 3 3 3 3 3 2 2 2 2 2 1 1 1 1
7 7 7 6 6 6 5 5 5 4 4 4 4 4 3 3 3 3 3 2 2 2 2 2 1 1 1
7 7 6 6 5 5 4 4 4 3 3 3 3 3 2 2 2 2 1 1
7 6 5 4 3 2 1

**Stub code**

```
import java.util.Scanner;

class PatternPrinter {
  public static void main(String[] args) {
    Scanner in = new Scanner(System.in);
    int n = in .nextInt();
    patternPrinter(n);
  }

  static void patternPrinter(int n) {
        // write your code here
  }
}
```