**Java 1D Array**

<https://www.hackerrank.com/challenges/java-1d-array-introduction/problem>

An array is a simple data structure used to store a collection of data in a contiguous block of memory. Each element in the collection is accessed using an *index*, and the elements are easy to find because they're stored sequentially in memory.

Because the collection of elements in an array is stored as a big block of data, we typically use arrays when we know exactly how many pieces of data we're going to have. For example, you might use an array to store a list of student ID numbers, or the names of state capitals. To create an array of integers named *myArray* that can hold four integer values, you would write the following code:

int[] myArray = new int[4];

This sets aside a block of memory that's capable of storing *4* integers. Each integer storage cell is assigned a unique *index* ranging from *0* to one less than the size of the array, and each cell initially contains a *0*. In the case of *myArray*, we can store integers at indices *0*, *1*, *2*, and *3*. Let's say we wanted the last cell to store the number *12*; to do this, we write:

myArray[3] = 12;

Similarly, we can print the contents of the last cell with the following code:

System.out.println(myArray[3]);

The code above prints the value stored at index *3* of *myArray*, which is *12* (the value we previously stored there). It's important to note that while Java initializes each cell of an array of integers with a *0*, not all languages do this.

**Task**

The code in your editor does the following:

1. Reads an integer from stdin and saves it to a variable, *n*, denoting some number of integers.
2. Reads *n* integers corresponding to*a0, a1, . . . , an-1*from stdin and saves each integer *ai* to a variable, val.
3. Attempts to print each element of an array of integers named *a*.

Write the following code in the unlocked portion of your editor:

1. Create an array, *a*, capable of holding *n* integers.
2. Modify the code in the loop so that it saves each sequential value to its corresponding location in the array. For example, the first value must be stored in *a0*, the second value must be stored in *a1*, and so on.

Good luck!

**Input Format**

The first line contains a single integer, *n*, denoting the size of the array.  
Each line *i* of the *n* subsequent lines contains a single integer denoting the value of element *ai*.

**Output Format**

You are not responsible for printing any output to stdout. Locked code in the editor loops through array *a* and prints each sequential element on a new line.

**Sample Input**

5

10

20

30

40

50

**Sample Output**

10

20

30

40

50

**Explanation**

When we save each integer to its corresponding index in *a*, we get *a = [10,20,30,40,50]*. The locked code prints each array element on a new line from left to right.