**Arrays Solutions**

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# LEVEL 1: **Easy**

### Create an array

Take size of array as input from user, create integer array by taking inputs from user and then print the array using for each loop.

import java.util.Scanner;  
  
public class CreateArray {  
 public static void main(String[] args) {  
 Scanner scanner = new Scanner(System.*in*);  
 int n = scanner.nextInt();  
  
 int[] arr = new int[n];  
 for(int i=0;i<n;i++){  
 arr[i] = scanner.nextInt();  
 }  
  
 for(int ele: arr){  
 System.*out*.println(ele);  
 }  
 }  
}

### Sum of all values

Print the sum of all values in an integer array.

import java.util.Scanner;  
  
public class SumOfValues {  
 public static void main(String[] args) {  
 Scanner scanner = new Scanner(System.*in*);  
 int n = scanner.nextInt();  
 int sumOfValues=0;  
  
 int[] arr = new int[n];  
 for(int i=0;i<n;i++){  
 arr[i] = scanner.nextInt();  
 sumOfValues+=arr[i];  
 }  
  
 System.*out*.println(sumOfValues);  
 }  
}

### Double the values

Take an integer array as input from user and double all the values and print the new array

public class DoubleTheValues {  
 public static void main(String[] args) {  
 Scanner scanner = new Scanner(System.*in*);  
 int n = scanner.nextInt();  
  
 int[] arr = new int[n];  
 int[] doubledArr = new int[n];  
  
 for(int i=0;i<n;i++){  
 arr[i] = scanner.nextInt();  
 }  
  
 for(int i=0; i<n; i++){  
 doubledArr[i] = 2\*arr[i];  
 System.*out*.println(doubledArr[i]);  
 }  
 }  
}

### Maximum number

Write a program to find the largest element in a given array.

public class MaxNumber {  
 public static void main(String[] args) {  
 int[] arr = {12,43,75,22,93,45,68,4};  
 int maxValue = Integer.*MIN\_VALUE*;  
 int maxIndex=-1;  
 for(int i=0; i<arr.length; i++){  
 if(arr[i]>=maxValue){  
 maxValue = arr[i];  
 maxIndex = i;  
 }  
 }  
 System.*out*.println("Max value : " + maxValue + " max value index is : " + maxIndex);  
 }  
}

### Minimum non-negative number

Write a program to find the smallest non negative element in a given array. If all elements are negative print 0.

public class MinValue {  
 public static void main(String[] args) {  
 int[] arr = {12,43,75,2,93,45,68,4};  
 int minValue = Integer.*MAX\_VALUE*;  
 int minIndex=-1;  
 for(int i=0; i<arr.length; i++){  
 if(arr[i]>0 && arr[i]<minValue){  
 minValue = arr[i];  
 minIndex = i;  
 }  
 }  
 if(minIndex==-1){  
 System.*out*.println(0);  
 }else{  
 System.*out*.println("Min value : " + minValue + " min value index is : " + minIndex);  
 }  
 }  
}

### Check if number exists in an array.

Given an integer array, input value x from user and check if x exists in array or not. Print Boolean true or false as result.

import java.util.Scanner;  
  
public class CheckNumberExists {  
 public static void main(String[] args) {  
 Scanner scan = new Scanner(System.*in*);  
 int[] arr = {12,43,75,22,93,45,68,4};  
 int x = scan.nextInt();  
 boolean exists = false;  
  
 for(int ele: arr){  
 if(ele==x){  
 exists=true;  
 break;  
 }  
 }  
 System.*out*.println(exists);  
 }  
}

### Count even and odd numbers

Write a program to calculate number of odd and even numbers in integer array.

public class EvenAndOdd {  
 public static void main(String[] args) {  
 int[] arr = {12,43,75,22,93,45,68,47,79};  
 int countOfEven = 0;  
 int countOfOdd = 0;  
  
 for(int ele: arr){  
 if(ele%2==0){  
 countOfEven++;  
 }  
 else{  
 countOfOdd++;  
 }  
 }  
  
 System.*out*.println("Even numbers count: " + countOfEven + ", Odd numbers count: " + countOfOdd);  
 }  
}

### Copy elements of one array to other.

Create one array of size 5 and create a new array and copy elements from existing array to this new array.

public class CopyAnArray {  
 public static void main(String[] args) {  
 int[] arr = {12, 43, 75, 22, 93};  
 int[] newArr = new int[5];  
  
 for (int i = 0; i < 5; i++) {  
 newArr[i] = arr[i];  
 }  
 }  
}

### Rotate an array to right

Rotate an array by one position to the right.

public class RotateAnArray {  
 public static void main(String[] args) {  
 int[] arr = {1,2,3,4,5};  
 int len = arr.length;  
   
 int[] rotatedArr = new int[len];  
 rotatedArr[0] = arr[len-1];  
   
 for(int i=1;i<len;i++){  
 rotatedArr[i] = arr[i-1];  
 }  
 }  
}

### Check if array is sorted

Write a program to check if a given array is sorted in ascending order.

public class CheckIfSorted {  
 public static void main(String[] args) {  
 int[] arr = {32,54,75,43,55,90};  
 boolean isSorted = true;  
   
 for(int i=1;i<arr.length;i++){  
 if(arr[i]<arr[i-1]){  
 isSorted=false;  
 break;  
 }  
 }  
 System.*out*.println(isSorted);  
 }  
}

### Reverse the array

Write a program to reverse a given array.

public class ReverseTheArray {  
 public static void main(String[] args) {  
 int[] arr = {32,54,75,43,55,90};  
 int len = arr.length;  
  
 for(int i=0;i<len/2;i++){  
 int temp = arr[i];  
 arr[i] = arr[len-1-i];  
 arr[len-1-i] = temp;  
 }  
  
 for(int ele:arr){  
 System.*out*.println(ele);  
 }  
 }  
}