

## Day 56 coding Statement : Write Program to find whether the numbers of an array be made equal

**Description :** Check whether the numbers of array be made equal or not

For eg, for the following input it should print yes because

$50 \times 2 \times 3$  ,  $75 \times 2 \times 2$  and  $150 \times 2$  are equal to 300 in all cases. So array numbers can be made equal

**Input : 3**

50 75 150

**Output : Yes**

Program:

```
package com.talentbattle.codingchallenge;

import java.util.Scanner;

public class EqualArray {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        Scanner scan = new Scanner(System.in);
        //Taking the length of Array as the input from user
        System.out.println("Enter the Array length");
        int n= scan.nextInt();
        int[] arr = new int[n];

        //Taking Array elements as the input from the user
        System.out.println("Enter the Array Elements");
        for(int i=0;i<n;i++) {
            arr[i] = scan.nextInt();
        }

        if(EqualNumbers(arr,n))
        {
            System.out.println("Yes");
        }
        else
        {
            System.out.println("No");
        }
    }

    private static boolean EqualNumbers(int[] arr, int n) {
        // TODO Auto-generated method stub
        //checking weather the Array elements can be made equal or not.
```

```

        for(int i=0;i<n;i++) {

            //Divide the array elements by 2
            while(arr[i]%2==0) {
                arr[i] /= 2;
            }

            //Divide by 3
            while(arr[i]%3==0) {
                arr[i] /=3;
            }

            //if any array element is not equal to arr[0] return false and
            print "No"

            if(arr[i]!=arr[0]) {
                return false;
            }
        }
        return true;
    }
}

```



