1. Program   ▼   ⓘ   ‹   1

Question 2

🔖 Revisit Later

How to Attempt?

Hotel Double Cross

Akshay works for the Secret Intelligent Service. His role involves decoding cryptic information.

Recently he has received 3 sets of numbers (3 arrays of numbers). The number of elements in each set (in each array) is the same. These numbers have to be decoded to find the room number of a person staying in Hotel Double Cross. The below example demonstrates the steps to be performed while decoding the given numbers.

Example - Let us assume that the 3 set of numbers are as below -

input1 : {1,2,3,4}

input2 : {2,3,4,5}

input3 : {1,3,5,7}

Step 1: Generate a new set of elements by adding numbers present at the same index in the three arrays. So, we get, {4,8,12,16}

Step 2: The array generated in step-1 represents the position of the elements in the three arrays. i.e.

the **first** number 4 represents the number in **4th** position in the **FIRST** array.

the **second** number 8 represents the number in **8th** position in the **SECOND** array.

Step 3: Add ALL the positional numbers generated in step 2 to get the FINAL Result which represents the room number in Hotel Double Cross. i.e. Room number = 4 + 5 +

$7 + 4 = 20$

Note :

1) There will always be THREE input arrays

2) All 3 arrays will have the same number of elements

3) The number of array elements is specified by input4

4) The array elements will always be positive numbers greater than 0

Example 2: Let us now assume the 3 input arrays are as given below.

input1 = {10,33,5,40,120,98,1}

input2 = {121,78,21,32,91,340,72}

input3 = {65,320,72,84,32,843,40}

input4 = 7 (the number of elements in each of the input arrays)

Step1 : The new set of elements by adding numbers present at the same index in th three arrays will be {196,431,98,156,243,1281,113}

Step2: Picking up numbers from input1, input2 and input3 based on the output

Step1 we get:

1 (number present at position 196 in input1)

32 (number present at position 431 in input2)

40 (number present at position 98 in input3)

33 (number present at position 156 in input1)

91 (number present at position 243 in input2)

40 (number present at position 1281 in input3)

10 (number present at position 113 in input1)

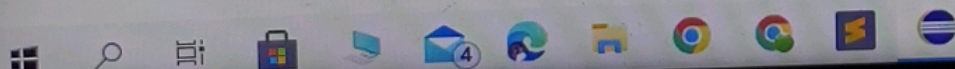Step3: Sum of these numbers gives the Room Number : 247

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```java
public static int findroomnumber(int[] input1,int[] input2, int[] input3,int input4) {
    //WRITE FROM HERE
    int len=input1.length;
    int[] a=new int[len];
    for(int i=0;i<len;i++) {
        a[i]=input1[i]+input2[i]+input3[i];
    }
    int sum=0;
    for(int i=0;i<len;i++) {
        if(i%3==0) {
        if(a[i]%len==0)
        a[i]=input1[len-1];
        else
            a[i]=input1[(a[i]%len)-1];
        }
        else if(i%3==1) {
            if(a[i]%len==0)
                a[i]=input2[len-1];
                else
                    a[i]=input2[(a[i]%len)-1];
        }
        else if(i%3==2) {
            if(a[i]%len==0)
                a[i]=input3[len-1];
                else
                    a[i]=input3[(a[i]%len)-1];
        }
        sum+=a[i];
    }
    return sum;
}
```