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## SDE Technical Test - November

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## Question 3 / 4

In given array of elements like [a1,a2,a3,..an,b1,b2,b3,..bn,c1,c2,c3,...cn] Write a program to merge them like [a1,b1,c1,a2,b2,c2,...an,bn,cn].

PS: Do it without using extra memory

## Sample Testcases:

Input #00:

{1,2,3,4,5,6,7,8,9,10,11,12}

Output #00:

 $\{1,5,9,2,6,10,3,7,11,4,8,12\}$ 

Explanation:

Here as you can notice, the array is of the form

 $\{a1, a2, a3, a4, b1, b2, b3, b4, c1, c2, c3, c4\}$ 

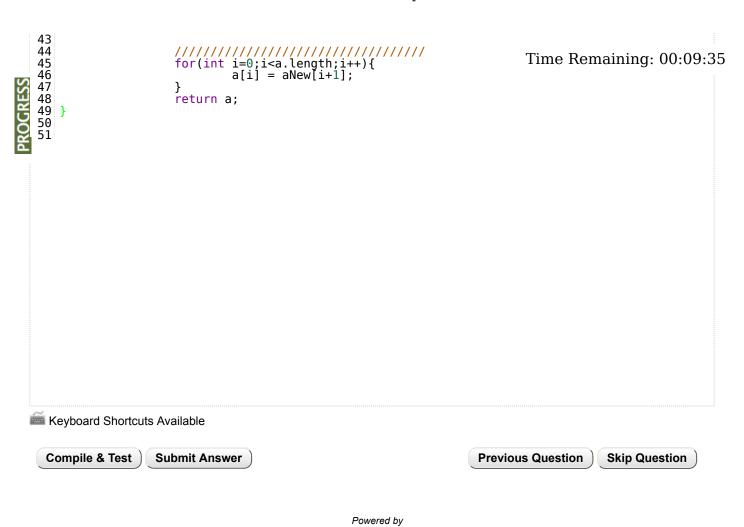
Pick your language C C++ Java

```
//index starts from 1 for simplification
    int getDestinationIndex(int length, int index){
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                         int diff;
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                         int dest = -1;
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                         if(index>=1 && index<=length/3){</pre>
                                   \begin{array}{l} \text{diff} = 0; \\ \text{dest} = 3*(\text{index} - \text{diff} - 1) + 1; \end{array}
                         }else if(index>=(length/3)+1 && index<=(2*length/3)){
                                   diff = length/3;

dest = 3*(index - diff - 1) + 2;
                         }else if(index>=(2*length/3)+1 && index<=(3*length/3)){
                                   diff = 2*length/3;

dest = 3*(index - diff - 1) + 3;
                         }else{
                                   //if everything fine.. this will not get printed
System.out.println("Something is wrong");
                         }
                         return dest;
              }
    static int[] getMergedArray(int[] a) {
   int aNew[] = new int[a.length+1];
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