**Arrays Test Review**

**Section 1 – Track the Code**

**Problem # 1** –

What does the nums array contain after the following code?

int [] nums = new int[5];

for(int x = 0; x < nums.length; x++)

 nums[x] = 2 \* x;

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| index (x) | 0 | 1 | 2 | 3 | 4 |
| nums[x] | 0 | 2 | 4 | 6 | 8 |

**Problem # 2**

What does the nums array contain after the following code?

int [] nums = {4, 25, 11, 21, 9 ,5};

for(int x = nums.length-1; x > 0; x--)

 nums[x] = nums[nums.length-x];

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| index (x) | 0 | 1 | 2 | 3 | 4 | 5 |
| nums[x] |  |  |  |  |  |  |

**Section 2 – Written**

Write a method receives an array of integers. Each element in the array will be changed in one of two ways:

If the element that follows it is greater than 10, the element is reduced by 5. If the element that follows it is less than or equal to 10, the element is increased by 5. The last element should make its decision based on the first element in the array.

Thus the array {8, 12, 5, 11, 12, 25} would become {3, 17, 0, 6, 7, 30}.

public static void changeArray(int [] nums){

for(int x =0; x < nums.length-1; x++){

 if(nums[x+1] > 10) nums[x] -=5;

 else nums[x] +=5;

}

if(nums[0]> 10) nums[nums.length - 1] -=5;

else nums[nums.length - 1] +=5;

}

**Section 3 – Repl.it - RemoveElement**

Open up RemoveElement from Repl.it This program is partially built. The user is given the opportunity to enter in the size and values for the elements of an integer array. This all happens in the buildArray method and is provided to you. The program will then prompt the user for the index of the element to remove from the array. That value and the array are sent into the remove method, which will create a new array, possessing the same elements as the original minus the element at the index specified by the user.

Enter number of elements in the array

5

Enter element at index 0

0

Enter element at index 1

1

Enter element at index 2

2

Enter element at index 3

3

Enter element at index 4

4

Enter index to be removed:

2

New array contents are {0, 1, 3, 4}

The original array built is {0, 1, 2, 3, 4}. After the remove method is called, we remove the value at index 2. The new array minus that element is {0, 1, 3, 4}