

Trace the code and show the output where indicated. Explain any errors and skip to the next statement.

```
1.
ArrayList<Integer> nums = new ArrayList<Integer>();
for (int i = 1; i <= 10; i++)
    nums.add(i);
System.out.println(nums.get(3));    // output is:
for (int i = 0; i < nums.size(); i++)
    if (nums.get(i) % 2 == 0)
        nums.remove(i);
System.out.println(nums);           // output is:
```

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2.
ArrayList<Integer> list1 = new ArrayList<Integer>();

for (int i = 1; i <= 10; i++)
    list1.add(i);
for (int i = 0; i < list1.size(); i++)
    if (list1.get(i) == 3)
        list1.remove(i);

System.out.println(list1);    // output is:
```

```
3.
ArrayList<Integer> list2 = new ArrayList<Integer>();

for (int i = 1; i <= 10; i++)
    list2.add(i);

int size = list2.size();
for (int i = 0; i < size; i++)
    if (list2.get(i) == 3 || list2.get(i) == 4)
        list2.remove(i);

System.out.println(list2);    // output is:
```

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4.
ArrayList<Integer> list3 = new ArrayList<Integer>();
for (int i = 1; i <= 10; i++)
    list3.add(i);
for (int i = 0; i < list3.size(); i++)
    if (list3.get(i) == 3 || list3.get(i) == 4)
        list3.remove(i);
System.out.println(list3);    // output is:
```