

Assignments:

Task 1:

This is one program (just broken down into five steps):

1. Fill an ArrayList with a random number (between 2 and 12) of HashSets that each hold exactly 10 random numbers between 1 and 30. All of the sets must have sizes equal to 10.
2. Make a method that will receive two sets and return a **set** of the intersection of the sets. The intersection will consist only of the common values contained within all sets.
 - Method calls must eventually build the complete intersection of all of the sets.
3. Make a method that will receive two sets and return a **set** of the union of the sets. The union will consist only of the unique values contained within all sets.
 - Method calls must eventually build the complete union of all of the sets.
4. Make a method that will receive two sets and return a **set** of even intersection of the sets. The intersection will consist only of the common even values contained within all sets.
 - Method calls must eventually build the complete intersection of the even values contained within all of the sets.
5. Make a method that will receive two sets and return a **set** of the even union of the sets. The union will consist only of the unique even values contained within all sets.
 - Method calls must eventually build the complete union of the even values contained within all of the sets.

Task 2:

Make an account on this website: <http://www.codewars.com>

You can pick any user name you would like, but, in your account, you need to join the clan (SBHSCoders).

You must do the following tasks on CodeWars:

These three can be solved using sets:

[Twice linear](#), [80's Kids #7: She's a Small Wonder](#), [Detect Pangram](#)

And do these because they're good for you!

(Also do them, because they're required.)

[intTunes](#)

[Catching Car Mileage Numbers](#)

[Sum by Factors](#)

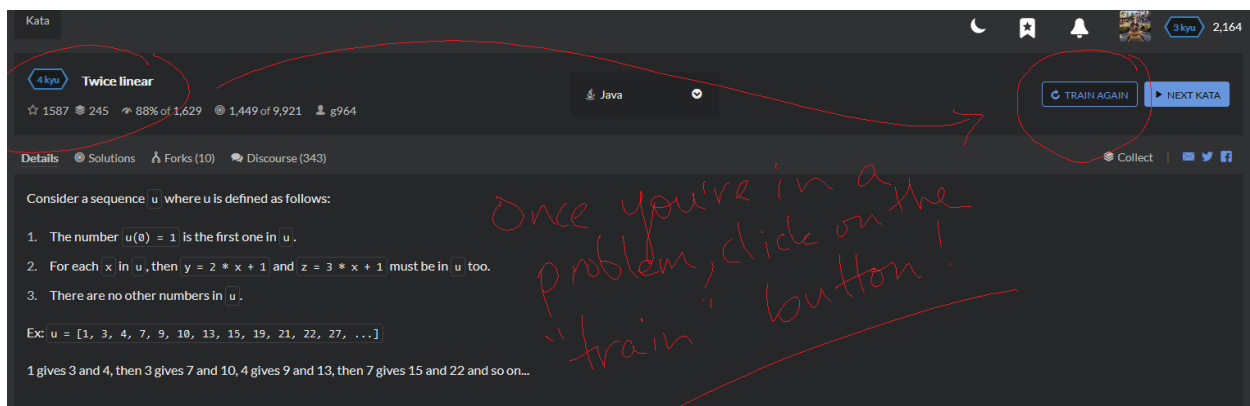
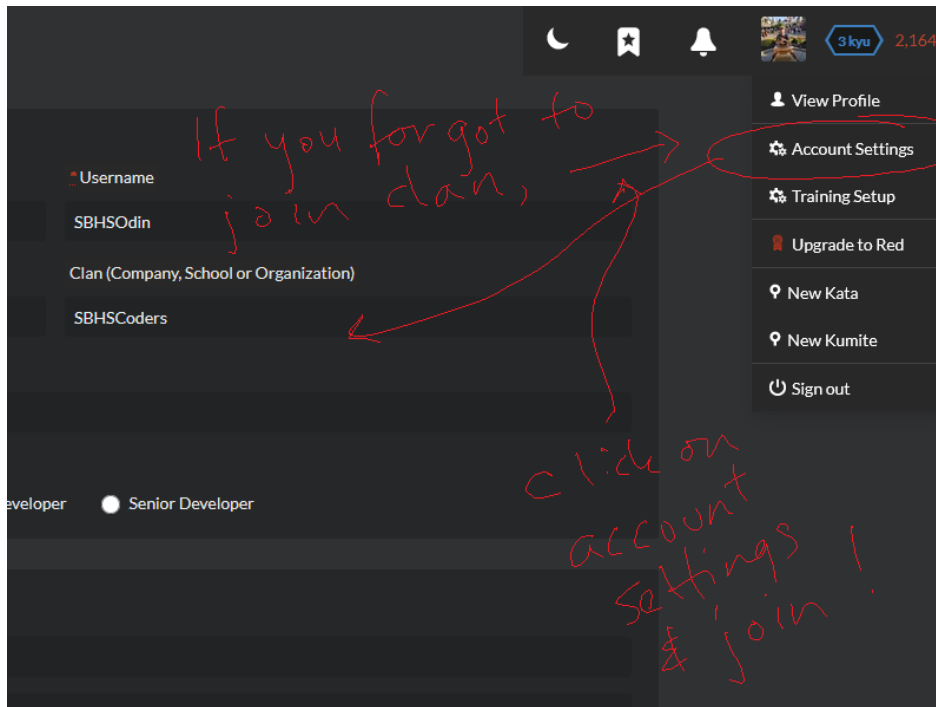
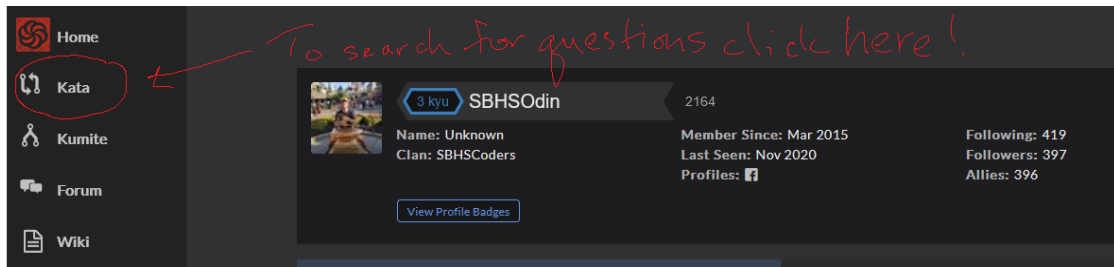
[Feed Kahumolings!](#)

[Escape with your booty!](#)

[Longest Strict Bouncy Subarray](#)

[Which are in?](#)

[Your order, please](#)



4kymTwice linear

☆ 1587 ● 245 88% of 1,629 1,449 of 9,921 g964

InstructionsOutputPast Solutions

Consider a sequence u where u is defined as follows:

- The number $u(0) = 1$ is the first one in u .
- For each x in u , then $y = 2 * x + 1$ and $z = 3 * x + 1$ must be in u too.
- There are no other numbers in u .

Ex: $u = [1, 3, 4, 7, 9, 10, 13, 15, 19, 21, 22, 27, \dots]$

1 gives 3 and 4, then 3 gives 7 and 10, 4 gives 9 and 13, then 7 gives 15 and 22 and so on...

Task:

Given parameter n the function `dbl_linear` (or `dblLinear...`) returns the element $u(n)$ of the ordered (with $<$) sequence u (so, there are no duplicates).

Example:

Java11VIMEMACS

Solution:

```
1 *class DoubleLinear {
2
3 *   public static int dblLinear (int n) {
4       // your code
5   }
6 }
```

Sample Tests:

```
1 *import static org.junit.Assert.*;
2 import org.junit.Test;
3
4
5 *public class DoubleLinearTest {
6
7 *   private static void testing(int actual, int expected) {
8       assertEquals(expected, actual);
9   }
10 }
```

SKIPVIEW SOLUTIONSDISCUSS (149)RESETTESTATTEMPT

Type
Code in
here!

2. Click attempt
to test all cases.

1. Click test
to try it

If it works,
it will say
so!
Click to
finalize.