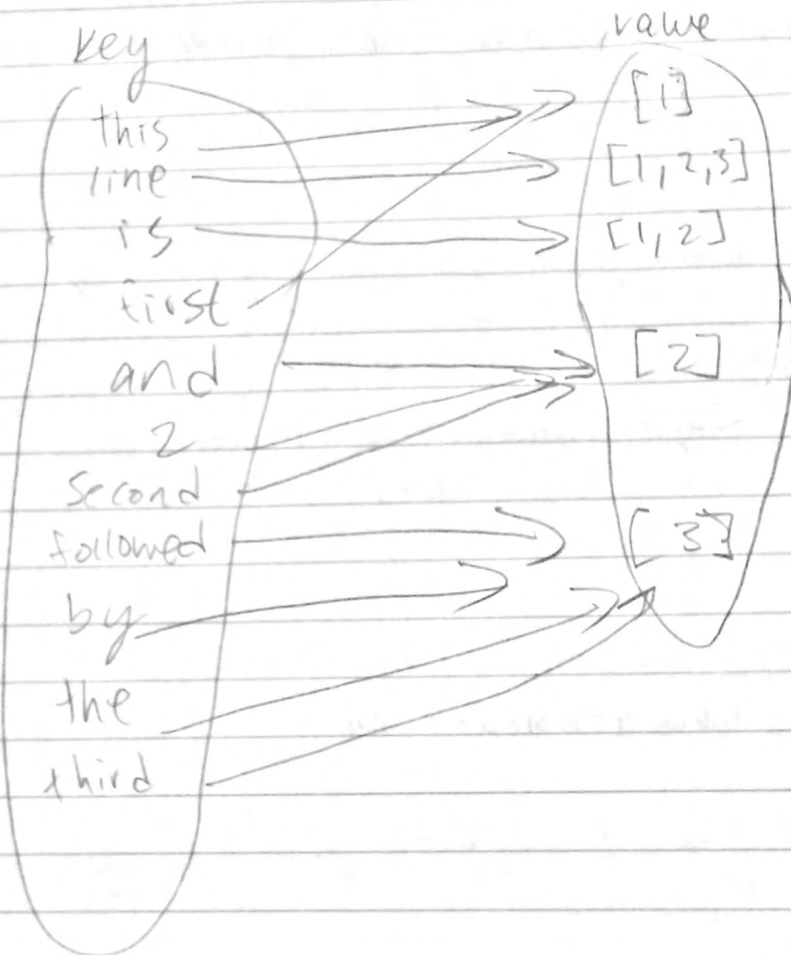


## Lab 13

## Self Check #2

②



- ① Which data field would you select as the key and why?
- (a) ISBN. Because each book has a unique ISBN number.
  - (b) Player's name because it is unique
  - (c) Model number because it is unique
  - (d) Course ID because each class has a unique class ID.

the  $\leftrightarrow$  2

## Programming

① `Map<String, Integer> map = new HashMap<String, Integer>();`  
          ↑                  ↑  
      key; word          value; number of occurrences.

② `public void buildWordCount(Scanner keyboard)`

{

`while (keyboard.hasNextLine()) {`

`String line = keyboard.nextLine();`

`String[] words = line.split(" ");`

`for (int i = 0; i < words.length; i++)`

        {

`String word = words[i].toLowerCase();`

`if (map.get(word) == null)`

            {

`map.put(word, 1);`

            }

`else`

            {

`map.put(word, (map.get(word) + 1));`

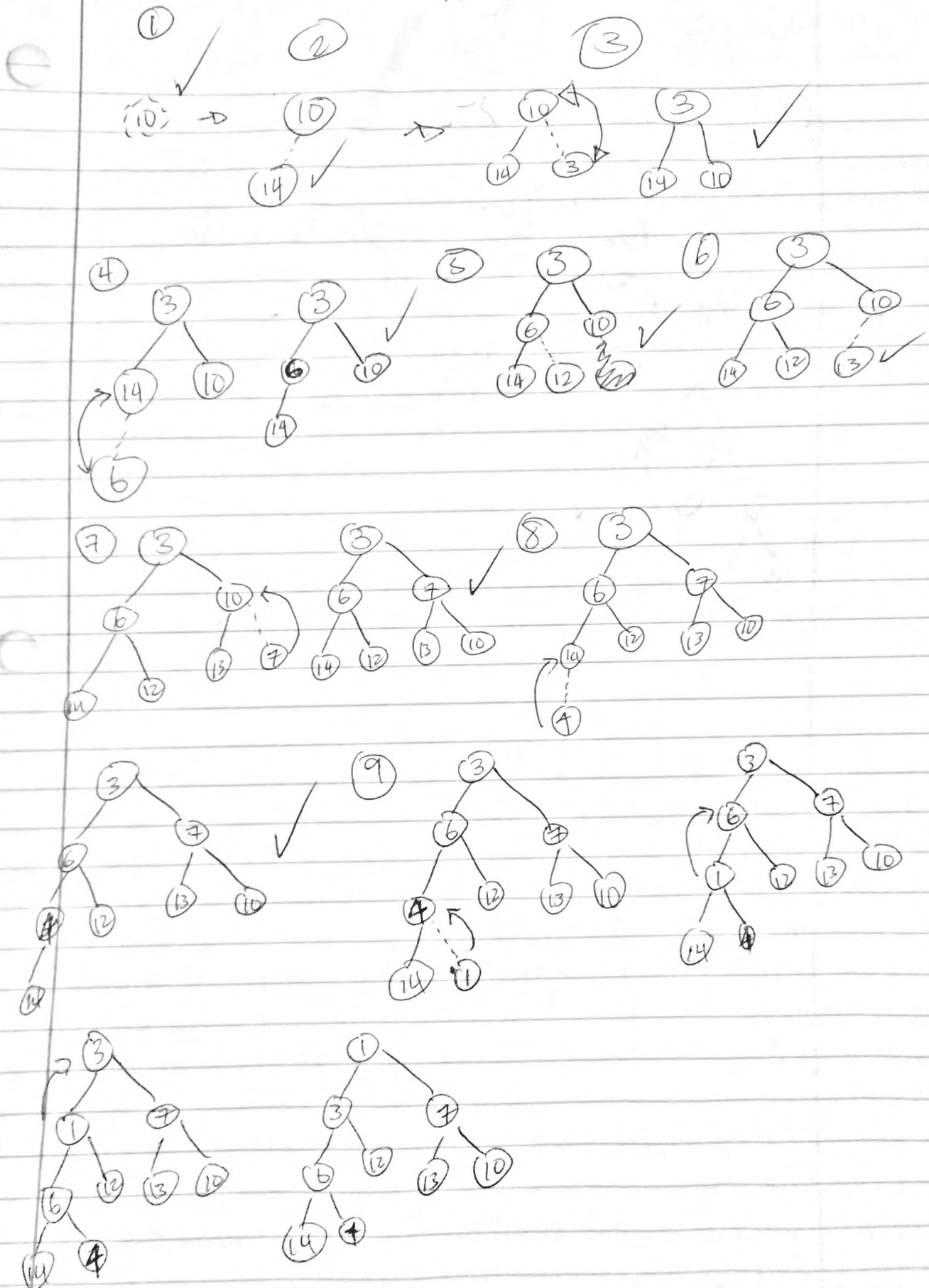
            }

        }

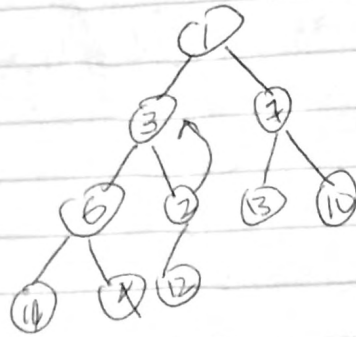
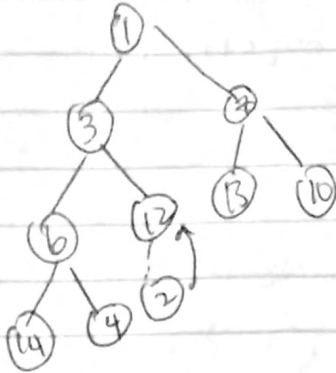
    }

# LAB 11

Joshua Wang



(10)



Final Array

1	2	7	6	3	13	10	14	4	12
---	---	---	---	---	----	----	----	---	----

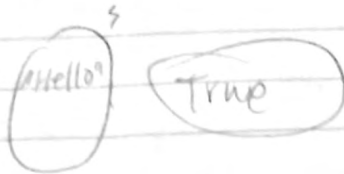


## Lab 12 Self Check

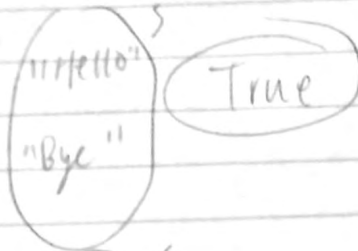
#1 ① `Set<String> s = new HashSet<String>();`  
creates a new Set



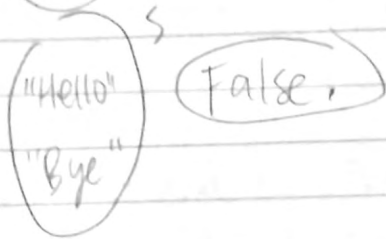
② `s.add("Hello");`



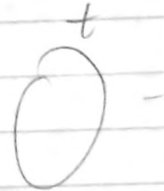
③ `s.add("bye");`



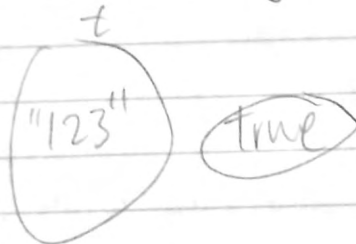
④ `s.addAll(s);`



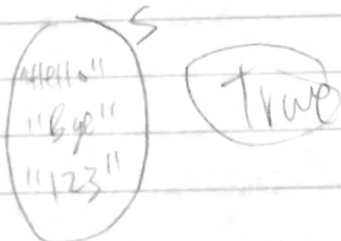
⑤ `Set<String> t = new TreeSet<String>();`



⑥ `t.add("123");`



⑦ `s.addAll(t);`



⑧ `System.out.println(s.containsAll(t));`

True

⑨ `System.out.println(t.containsAll(s));`

False

⑩ `System.out.println(s.contains("Ace"));`

⑪ `System.out.println(s.contains("123"));`

(12) `s.retainAll(t);`

$S$   
"123" True

(13) `sys.out (s.contains("123"));` True

(14) `t.retainAll(s);`

"123"

(15) `sys.out (t.contains("123"));` True

### Lab 12 Programming

(1)

(a) `c = (a ∪ b) → a.addAll(b);`

(b) `c = (a ∩ b) → a.retainAll(b);`

(c) `c = (a - b) → a.removeAll(b);`

(d) if `(a ⊂ b) → a.containsAll(b)`

`c = a;`

else

`c = b;`

(2) `public String toString()`

{

`String output = "";`

`while (iterator.hasNext()) {`

`output += iterator.next;`

`}`

`return output;`

`}`