

4.

(i) Find the kth smallest element in an ArrayList.

```
import java.util.*;  
  
public class kthsmallest {  
    public static void main ( ) {  
        ArrayList<Integer> list = new ArrayList<>(  
            Arrays.asList( 10, 4, 7, 2, 15, 9 ));  
  
        int k = 3; // kth smallest element  
        // sorted element now - problem (ii)  
        Collections.sort(list);  
        System.out.println("Sorted list: " + list);  
        System.out.println("kth smallest element = " + list.get(k-1));  
    }  
}
```

Output: [2, 4, 7, 9, 10, 15] kth smallest = 7st element

(ii) check if two Linked Lists are Equal

```
import java.util.*;  
  
public class LinkedListEqual {  
    public static void main ( ) {  
        LinkedList<Integer> list1 = new LinkedList<>(  
            Arrays.asList( 1, 2, 3 ));
```

```


        LinkedList<Integer> list2 = new LinkedList<>(
            Arrays.asList(1, 2, 3));
        if (list1.equals(list2))
            sout ("lists are equal");
        else
            sout ("not equal");
    }
}


```

(ii) TreeMap - Word frequency Counter

```


import java.util.*;
public class Wordfrequency {
    public void psvm() {
        String text = "java is easy and powerful";
        TreeMap<String, Integer> map = new TreeMap<>();
        String words[] = text.split(" ");
        for (String word : words) {
            map.put(word, map.getOrDefault(word, 0) + 1);
        }
        sout ("word frequencies:");
        sout (map);
    }
}


```