

```
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```

```
package StufafterArrays;
```

```
import java.util.*;
```

```
public class NumberSet {
```

```
    private ArrayList <Integer> list;
```

```
    public NumberSet () {  
        list = new ArrayList <Integer> ();  
    }
```

```
    public int Size () {  
        return list.size();  
    }
```

```
    public void insert (int number) {  
  
        if (this.contains(number) == false) {  
  
            if (list.size() != 0) {  
                int a = list.size();  
                for (int k = list.size()-1; k >= 0; k--) {  
                    if (number < list.get(k)) {  
                        a--;  
                    }  
                }  
                if (a == list.size()) {  
                    list.add(number);  
                }  
                else {  
                    list.add(a, number);  
                }  
            }  
  
            else {  
                list.add(number);  
            }  
        }  
  
        else {  
            System.out.println("No repeats!");  
        }  
    }  
}
```

```
    public boolean remove (int number) {  
  
        if (this.contains(number) == true) {  
            for (int i = 0; i < list.size(); i++) {  
                if (list.get(i) == number) {
```

```

        list.remove(i);
        i--;
    }
}

    if (this.contains(number) == false) {
        return true;
    }
    else {
        return false;
    }

}
else {
    return false;
}

}

public int findkth (int k) {

    if (k < list.size()) {
        return list.get(k);
    }
    else {
        return -1000;
    }
}

public boolean contains (int number) {

    for (int i = 0; i < list.size(); i++) {
        if (list.get(i) == number) {
            return true;
        }
    }
    return false;
}

public String toString () {
    String a = "";
    for (int j = 0; j < list.size(); j++) {
        a+= list.get(j) + " ";
    }
    return a;
}

}

```

```

package StufafterArrays;

```

```

public class NumberSetTester {

    public static int countNegatives (NumberSet s) {
        int counter = 0;
        for (int m = 0; m < s.Size(); m++) {
            if (s.findkth(m) < 0) {
                counter ++;
            }
        }
        return counter;
    }
    //returns the number of negative integers in s

    public static void removeNegatives (NumberSet s) {
        for (int n = 0; n < s.Size(); n++) {
            if (s.findkth(n) < 0) {
                boolean a = s.remove(s.findkth(n));
                if (a == true) {
                    n--;
                }
                else {
                    break;
                    System.out.print("The method has failed");
                }
            }
        }
    }
    //removes negative integers in NumberSet s

    public static int calcSum (NumberSet s) {
        int sum = 0;
        for (int m = 0; m < s.Size(); m++) {
            sum += s.findkth(m);
        }
        return sum;
    }
    //returns the sum of all elements of ns

    public static void main(String[] args) {
        // TODO Auto-generated method stub

        NumberSet ns = new NumberSet();

        ns.insert(12);
        ns.insert(3);
        ns.insert(45);
        ns.insert(-67);
        ns.insert(189);
        ns.insert(-10);
        ns.insert(111);
        ns.insert(-134);
        ns.insert(51);
    }
}

```

```
        ns.insert(-16);
        ns.insert(-67);
        ns.insert(75);
        ns.insert(181);
        ns.insert(62);
        System.out.println(ns);
        ns.remove(70);
        System.out.println(ns.findkth(10));
        System.out.println(countNegatives(ns));
        removeNegatives(ns);
        System.out.println(calcSum(ns));

    }

}
```

CONSOLE:

No repeats!
-134 -67 -16 -10 3 12 45 51 62 75 111 181 189
Does Not Exist
111
4
3 12 45 51 62 75 111 181 189
729