source.java | Source.java

```java
package com.trg.pt;

import java.util.ArrayList;
import java.util.Arrays;
import java.util.Collections;
import java.util.List;

public class Source {
 public int sum(ArrayList<Integer> numbers){
    int s=0;
    for(Integer i:numbers) {
    s+=i;
    }   return s;
    }

public ArrayList<Integer> splitAndReverse(ArrayList<Integer> list){
    int size=list.size();
    List<Integer> list1= new ArrayList<Integer>();
    List<Integer> list2= new ArrayList<Integer>();
    ArrayList<Integer> res= new ArrayList<Integer>();
    if(size%2==0) {
        list1= list.subList(0, size/2);
        list2= list.subList(size/2, size);
        Collections.reverse(list1);
        Collections.reverse(list2);
    }
    else
    {
        list1=list.subList(0, (size/2)+1);
        list2=list.subList((size/2)+1, size);
        Collections.reverse(list1);
        Collections.reverse(list2);
        list1.addAll(list2);
        res.addAll(list1);
    }
    return res;
}
public Integer getItemAtIndex(ArrayList<Integer> list, int index) {
```

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22          list1= list.subList(0, size/2);
23          list2= list.subList(size/2, size);
24          Collections.reverse(list1);
25          Collections.reverse(list2);
26      }
27      else
28      {
29          list1=list.subList(0, (size/2)+1);
30          list2=list.subList((size/2)+1, size);
31          Collections.reverse(list1);
32          Collections.reverse(list2);
33          list1.addAll(list2);
34          res.addAll(list1);
35      }
36      return res;
37  }
38  public Integer getItemAtIndex(ArrayList<Integer> list, int index) {
39      if(index<=list.size()) {
40          return list.get(index);
41      }
42      else
43          {
44              return null;
45          }
46
47  }
48
49  public static void main(String[] args) {
50
51          ArrayList<Integer> numbers= new ArrayList<Integer>();
52          numbers.add(3);
53          numbers.add(2);
54          numbers.add(1);
55          Source obj = new Source();
56         System.out.println("Sum of numbers  "+ obj.sum(numbers));
57          System.out.println("value at index "+obj.getItemAtIndex(numbers, 0));
58          System.out.println(obj.splitAndReverse(numbers));
59  }
60  }
```