

**Homework 2 Written Problems**

**1)**

```
public void printLots (L, P)
throws IndexOutOfBoundsException
{
    list = L;
    position = P;

    if(position.get(position.size()-1)<list.size()-1) {
        throw new IndexOutOfBoundsException();
    }

    Iterator<Integer> positionItr = position.iterator() ;

    while(positionItr.hasNext()){
        int index = positionItr.next();
        System.out.println(list.get(index));

    }
}
```

2)

```
int compareIndex1 = 0;
int compareIndex2 = 0;
int justFound;

While(compareIndex1 < List1.size() - 1 && compareIndex2 < List2.size() - 1)
{
    If(List1.get(compareIndex1).compareTo(List2.get(compareIndex2)) < 0)
    {
        compareIndex1++;
    }

    Else If (List1.get(compareIndex1).compareTo(List2.get(compareIndex2)) > 0)
    {
        compareIndex2++;
    }

    Else
    {
        If(List1.get(compareIndex1) != justFound)
        {
            System.out.print(List1.get(compareIndex1));
            justFound = List1.get(compareIndex1);
        }

        compareIndex1++; compareIndex2++;
    }
}
```

3)

```
int tOs1 = -1
int tOs2 = list.size();

While(tOs2>tOs1)
{
    pushS1(x){
        if(tOs2>tOs1){
            tOs1++;
            list[tOs1] = x;
        }
        else{
            System.out.print("Stack overflow error")
        }
    }

    popS1(){
        return tOs;
        tOs--;
    }

    pushS2(x){
        if(tOs2>tOs1){
            tOs2--;
            list[tOs2] = x;
        }
        else{
            System.out.print("Stack overflow error")
        }
    }

    popS2(){
        return tOs;
        tOs;
    }
}
```

4)

Steps	Input Track	Holding1	Holding2	Holding3	Output Track
1	596728134	-	-	-	-
2	59672813	4	-	-	-
3	5967281	34	-	-	-
4	596728	34	-	-	1
5	59672	34	8	-	1
6	5967	34	8	-	21
7	5967	-	8	-	4321
8	596	-	78	-	4321
9	59	-	678	-	4321
10	5	9	678	-	4321
11	-	9	678	-	54321
12	-	9	-	-	87654321
13	-	-	-	-	987654321

b.

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