1:

```
package kvaluentjavatest1;


import java.util.Scanner;


public class Marathonrunner {


public static void main(String args[])
{
Scanner sc = new Scanner(System.in);
System.out.println("Enter a starting distance (between 5km to 8km)");
int ele;
int a = sc.nextInt();
ele=a;
while(true)
{


if(ele>8 || ele<5)
{
System.out.println("Sorry, choose a starting distance (between 5km to
8km )");
int b = sc.nextInt();
ele = b;
}
else {
ele = a;
break;
}


}
for(int i=ele;i>0;i--)
{
System.out.println("Distance to run: "+i);
if(i==(ele-1))
{
System.out.println("Good Start Keep it up!");
}
if(i<3)
{
```

```
System.out.println("Almost there!");
}

}
System.out.println("Done for the day!");
}
}
```

2:

```
package kvaluentjavatest1;
```

```java
import java.util.ArrayList;
import java.util.Collections;
import java.util.List;
import java.util.Scanner;


public class Profitandlosses {

static int summer(List<Integer> list)
{
int summers = 0;
for (int i :list)
{
summers+=i;
}

return summers;
}


public static void main(String args[])
{
ArrayList<Integer> arr = new ArrayList<Integer>();
ArrayList<Integer> arr1 = new ArrayList<Integer>();


Scanner sc = new Scanner(System.in);
int n = sc.nextInt();
for(int i=0;i<n;i++)
{
arr.add(sc.nextInt());

}



for(int i=0;i<n-1;i++)
{
for(int j=i+1;j<n;j++)
{
//System.out.println(arr.subList(i, j));
int sums = summer(arr.subList(i, j));
```

```
arr1.add(sums);
}
}

System.out.println(Collections.max(arr1));
arr1.sort(null);
System.out.println(arr1);
//System.out.println(arr1);
}
}
```

3:

```
package kvaluentjavatest1;
```

```java
import java.util.ArrayList;
import java.util.List;
import java.util.Scanner;


public class Subsetequal {
static int summer(List<Integer> list)
{
int summers = 0;
for(int i :list)
{
summers+=i;
}

return summers;
}


public static void main(String args[])
{
int flag=0;
ArrayList<Integer> arr = new ArrayList<Integer>();
Scanner sc = new Scanner(System.in);
int a = sc.nextInt();
for(int i=0;i<a;i++)
{
arr.add(sc.nextInt());
}

for(int i=0;i<a-1;i++)
{
ArrayList<Integer> arr1 = new ArrayList<Integer>();
ArrayList<Integer> arr2 = new ArrayList<Integer>();

for(int j=i+1;j<a;j++)
{     arr1.addAll(arr.subList(i, j));
for(int i1:arr)
{
if(arr1.contains(i1))
{
//
```

```
}
else {
arr2.add(i1);
}
}
if(summer(arr1)==summer(arr2))
{
flag=1;
}

}
}
if(flag==1)
{
System.out.println("true");
}
else {
System.out.println("false");
}

}
}
```

4:

```
package kvaluentjavatest1;

public class Numberofjumps {
```

```
public static void main(String args[])
{
/*
//int [] arr = new int[5];

int flag=0;
int runner=0;
int jumps=0;
int curr=0;
int cnt=0;
int ran=arr.length;

for(int i=0;i<arr.length;i++)
{
jumps=arr[i];
if(jumps>1)
{
int maxel=0;
for(int j=1;j<jumps;j++)
{
if(arr[j]>(arr.length-i))
{
flag=1;
//cnt++;
}
else {
if(maxel<arr[j])
{
maxel=arr[j];
//cnt++;
}

}
}

}
else {
ran-=1;
cnt++;
}
}
System.out.println(cnt);
```

```
*/
int arr[] = {1,3,5,8,9,2,6,7,6,8,9};
 int runner=0;
 int i=0;
 int cnt=1;

 while(true)
 {
 runner=arr[i];
 int maxel=0;
 int jp=0;
 if(i+arr[i]<arr.length)
 {
     jp=i+arr[i];
 }
 else{
 break;
 }
 for(int j=i; j<i+arr[i];j++)
 {
     if(arr[j] > maxel)
     {
         maxel=arr[j];
     }
 }
 i+=maxel;
 if(i>arr.length)
 {
 break;
 }
 cnt+=1;

 }
 System.out.println(cnt);




/*
while(true)
{
jumps=arr[runner];
```

```
if(jumps>=arr.length)
{
System.out.println(cnt);
flag=1;
}
else {
for(int i=0;i<jumps;i++)
{

}
}

}
/*
if(flag==0)
{
System.out.print(-1);
}
*/


}


}
```

5:

```
package kvaluentjavatest1;

import java.util.ArrayList;
import java.util.Arrays;
import java.util.Scanner;
```

```
public class Lexicographysort {
/*
static String[] lexisort(String a[])
{

for(int i=0;i<a.length;i++)
{
for(int j=1;j<a.length-1;j++)
{
if(a[j-1].compareTo(a[j])>0)
{
String temp = a[j-1];
a[j-1]= a[j];
a[j] = temp;


}
}
}
return a;
}
*/
public static void main(String args[])

{
Scanner sc = new Scanner(System.in);
int n = 8;
ArrayList<String> a = new ArrayList<String>(n);
//String skip = sc.next();
for(int i=0;i<n;i++)
{
a.add(sc.nextLine());
}
a.sort(null);
//lexisort(a);
System.out.println(a);
}
```