```java
import java.util.*;

class GFG {

    public static int Minm(int arr[], int i,
                                    int sumCalculated,
                                    int sumTotal)
    {

        if (i == 0)
            return Math.abs((sumTotal - sumCalculated)
                            - sumCalculated);

        return Math.min(
            Minm(arr, i - 1,
                        sumCalculated + arr[i - 1],
                        sumTotal),
            Minm(arr, i - 1, sumCalculated,
                        sumTotal));
    }

    public static int findMin(int arr[], int n)
    {

        int sumTotal = 0;
        for (int i = 0; i < n; i++)
            sumTotal += arr[i];

        return Minm(arr, n, 0, sumTotal);
    }

    //test case 1:

    public static void main(String[] args)
    {
        int arr[] = { 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 };
        int n = arr.length;
        System.out.print("Minimum difference"
                        + " between two lists:  "
                        + findMin(arr, n));
                        System.out.print("\n");
    }
```

```
}
```

Output:
harshavaidhyam@Harshas-MacBook-Pro assignment1 % cd
/Users/harshavaidhyam/Desktop/Pitt\ term-1/Algo\ Design/assignment1 ; /usr/bin/env /Li
brary/Java/JavaVirtualMachines/temurin-17.jdk/Contents/Home/bin/java -
XX:+ShowCodeDetailsInExceptionMessages -cp /Users/harshavaidhyam/Desk
top/Pitt\ term-1/Algo\ Design/assignment1/bin GFG
Minimum difference between two lists: 1

For Test case 2:

```java
import java.util.*;

class GFG {


    public static int Minm(int arr[], int i,
                                    int sumCalculated,
                                    int sumTotal)
    {

        if (i == 0)
            return Math.abs((sumTotal - sumCalculated)
                            - sumCalculated);


        return Math.min(
            Minm(arr, i - 1,
                    sumCalculated + arr[i - 1],
                    sumTotal),
            Minm(arr, i - 1, sumCalculated,
                    sumTotal));
    }


    public static int findMin(int arr[], int n)
    {

        int sumTotal = 0;
        for (int i = 0; i < n; i++)
            sumTotal += arr[i];
```

```java
        return Minm(arr, n, 0, sumTotal);
    }


    //test case 1:

    public static void main(String[] args)
    {
        int arr[] = { 10, 20, 15, 5, 25, 100 };
        int n = arr.length;
        System.out.print("Minimum difference"
                        + " between two lists:  "
                        + findMin(arr, n));
                        System.out.print("\n");
    }
}
```

Output:

harshavaidhyam@Harshas-MacBook-Pro assignment1 % cd
/Users/harshavaidhyam/Desktop/Pitt\ term-1/Algo\ Design/assignment1 ; /usr/bin/env /Li
brary/Java/JavaVirtualMachines/temurin-17.jdk/Contents/Home/bin/java -
XX:+ShowCodeDetailsInExceptionMessages -cp /Users/harshavaidhyam/Desk
top/Pitt\ term-1/Algo\ Design/assignment1/bin GFG
Minimum difference between two lists: 25

Screenshot of output: