Test case 1

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


public class MaximumWeightDifference {

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


        Scanner sc=new Scanner(System.in);
        int i,T,K,N,sum=0,sum1=0,difference=0;
        //TEST CASE 1
        int [] array = new int [] {8,4,5,2,10};
        Arrays.sort(array);
        System.out.println("Elements of array sorted in ascending order: ");
        //prints array using the for loop
        for (i = 0; i < array.length; i++)
        {
            System.out.println(array[i]);
        }
        System.out.println("Enter K values = ");
        N=sc.nextInt();
        for(i=0;i<N;i++)
        {
```

```java
                sum=sum+array[i];
        }
        System.out.println("Weight should have been taken by
the Son : "+sum);



        for(i=N;i<array.length;i++)
        {
                sum1=sum1+array[i];
        }           System.out.println("Weight should have been
taken by the Chef : "+sum1);


        difference=sum1-sum;
        System.out.println("The maximum possible difference
is= "+difference);



    }
}


===output====
```

<terminated> MaximumWeightDifference [Java Application] C:\Program Files\Java\jre1.8.0_311\bin\jav

```
Elements of array sorted in ascending order:
2
4
5
8
10
Enter K values =
2
Weight should have been taken by the Son : 6
Weight should have been taken by the Chef : 23
The maximum possible difference is= 17
```

==

Test case 2

```java
import java.util.Arrays;

import java.util.Scanner;


public class Testcase2 {


    public static void main(String[] args) {

        // TODO Auto-generated method stub


        Scanner sc=new Scanner(System.in);
```

```java
        int i,T,K,N,sum=0,sum1=0,difference=0;
        //TEST CASE 1
        int [] array = new int [] {1,1,1,1,1,1,1,1};
        Arrays.sort(array);
        System.out.println("Elements of array sorted in ascending order: ");
        //prints array using the for loop
        for (i = 0; i < array.length; i++)
        {
            System.out.println(array[i]);
        }
        System.out.println("Enter K values = ");
        N=sc.nextInt();
        for(i=0;i<N;i++)
        {
            sum=sum+array[i];
        }
        System.out.println("Weight should have been taken by the Son : "+sum);


        for(i=N;i<array.length;i++)
        {
            sum1=sum1+array[i];
        }           System.out.println("Weight should have been taken by the Chef : "+sum1);
```

```java
        difference=sum1-sum;

        System.out.println("The maximum possible difference
is= "+difference);



    }
}
```

====== output====

```
Elements of array sorted in ascending order:
1
1
1
1
1
1
1
1
Enter K values =
3
Weight should have been taken by the Son : 3
Weight should have been taken by the Chef : 5
The maximum possible difference is= 2
```