- **MEDIUM**
- **Max Score: 40 Points**
-
-

Smaller Than Triplet Sum

You are given an array ARR containing N integers, and you are also given an integer TARGET. You task is to find the count of triplets i, j, k ($0 \le i < j < k < N$), such that ARR[i] + ARR[j] + ARR[k] is less than the value of TARGET.

For example:

If N = 7, ARR = { 1, 5, 2, 3, 4, 6, 7 } and TARGET = 9 Then, there are three triplets with sum less than 9:

1. {1, 5, 2}
2. {1, 2, 3}
3. {1, 2, 4}
4. {1, 3, 4} Thus, the output will be 4.

Your task is to complete the function threeSumSmaller which receives N, input array and TARGET as parameters and returns the count of triplets.

Input Format:

The first line contains a single integer N, denoting the size of the array.

The second line contains N integers of the array ARR, denoting the array elements.

The third line contains a single integer TARGET, denoting the target value to evaluate the smaller sum.

Output Format:

Print the count of triplets having a sum less than the given target value.

Example 1:

Input:

```
7
1 5 2 3 4 6 7
9
```

Output:

```
4
```

Explanation:

We will print 4 because:

The following four triplets have sum less than 9: {1, 5, 2}, {1, 2, 3}, {1, 2, 4} and {1, 3, 4}.

Example 2:

Input:

```
6
-1 0 2 3 4 6
4
```

Output:

```
3
```

Explanation:

We will print 3 because:

The following three triplets have sum less than 4: {-1, 0, 2}, {-1, 0, 3} and {-1, 0, 4}.

Constraints:

1 ≤ N ≤ 1000

-100 ≤ ARR[i] ≤ 100

-100 ≤ TARGET ≤ 100

My code

```
// n java
import java.util.*;
import java.lang.*;
import java.io.*;

public class Main
{
    public static void main (String[] args) throws
java.lang.Exception
    {
        //your code here
    Scanner s=new Scanner(System.in);
    int n=s.nextInt();
    int arr[]=new int[n];
    for(int i=0;i<n;i++)
      arr[i]=s.nextInt();
     int c=0, tr=s.nextInt();
    for(int i=0;i<n-2;i++)
```

```java
        for(int j=i+1;j<n-1;j++)
        for(int k=j+1;k<n;k++)
        if((arr[i]+arr[j]+arr[k])<tr)
          c++;

        System.out.print(c);
          }
}
```