

Count triplets with sum smaller than X

Given an array **arr[]** of distinct integers of size **N** and a sum value **X**, the task is to find count of triplets with the sum smaller than the given sum value **X**.

Input: $N = 5, X = 12$

```
arr[] = {5, 1, 3, 4, 7}
```

Output: 4

Explanation: Below are triplets with sum less than 12 (1, 3, 4), (1, 3, 5), (1, 3, 7) and (1, 4, 5).

```
class Solution:
    def countTriplets(self, arr, n, sum):
        # Your code goes here
        arr.sort()
        count = 0
        for i in range(0,n-2):
            left = i+1
            right = n-1
            while left<right:
                temp = arr[i]+arr[left]+arr[right]
                if temp>=sum:
                    right = right-1
                else:
                    count = count+(right-left)
                    left = left+1
        return count
```