

**input :**      **output :**

5              10  
1 2 3 4 5    15  
2  
1 4  
1 5

**prefix sum**

index 0 1 2 3 4  
value 1 2 3 4 5  
sum 1 3 6 10 15

time complexity is  $t \cdot n$

**prefix sum usage  
case 1**

Find the sum from index 2 to 4

index 0 1 2 3 4  
values 1 2 3 4 5  
sum 1 3 6 10 15

sum = 12 = 15 - 3

**prefix sum usage  
case 2**

Find the sum from index 0 to 3

index 0 1 2 3 4  
values 1 2 3 4 5  
sum 1 3 6 10 15

sum = 10

**suffix sum**

**opposite of prefix sum**

index 0 1 2 3 4  
values 1 2 3 4 5  
sum 15 14 12 9 5

**you will use  
prefix sum more**

```
if (l!=0){cout<<sum[r]-sum[l-1];}  
else{cout<<sum[r];}
```