**Difference Array Technique**

**When Given A Range(left, right, value) where value is to be either increased or decreased then the formula is given by**

**To Increase :**

**Difference\_Array[left] += val**

**Difference\_Array[right + 1] -= val**

**To Decrease :**

**Difference\_Array[left] -= val**

**Difference\_Array[right + 1] += val**

**This is Done in Order of Constant time I.e O(1)**

**And original value can be taken by simply calculating prefix sum**

**Update\_Array(left, right, value, distance){**

**distance[left] += value;**

**distance[right + 1] -= value;**

**}**

**PrintArray(distance){**

**For I in range(0 --> n){**

**Answer[I] = distance[I] + answer[I - 1]**

**}}**