**Better\_Enumeration:**

**Theoretical Run-time Analysis:**

**pseudo-code**

better\_enumeration(a[1…n])

For i=1 to n

Sum = 0

For j = i to n

sum=sum+a[j]

If sum>maxsum

Maxsum=sum

return maxsum

The i outer loop runs from 1 to n, the inner loop j runs from 1 to n. Thus, the theoretical run-time is O(n^2).

**Linear\_time:**

**Theoretical Run-time Analysis:**

**pseudo-code**

linear\_time(a[1…n])

int b[] = a[];//b is a clone of a

int max=a[0];

for i from 0 to n

if(b[i-1]>0)

b[i]=b[i-1]+a[i];

maxsum=max value in array b

return maxsum

The i loop track the input array elements from 1 to n. , the theoretical run-time is O(N).