

// Kadane Algorithm:

```
#include <stdio.h>
```

```
#include <stdlib.h>
```

```
int kadane(int A[], int n)
```

```
{
```

```
    int Max_current = A[0];
```

```
    int Max_global = A[0];
```

```
    for(int i = 0; i < n; i++)
```

```
    {
```

```
        int max = Max_current + A[i];
```

```
        if(A[i] < max)
```

```
            Max_current = max;
```

```
        else
```

```
            Max_current = A[i];
```

```
        if(Max_global<Max_current)
            Max_global=Max_current;
    }
    return Max_global;

}

int main()
{
    int A[] ={-2,3,2,-1 };
    int size = sizeof(A)/sizeof(A[0]);
    int result;


    result = kadane(A,size);
    printf("Maximum sum sub array is : %d", result);

    return 0;

}
```

Time Complexity: $O(n)$

Output:

 "H:\C Algo\Lab_7\bin\Debug\Lab_7.exe"

Maximum sum sub array is : 5

Process returned 0 (0x0) execution time : 0.031 s

Press any key to continue.