

ECS 122A Homework 3

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```
1. 1: function MAXSUBARRAY(arr)
   2:   n ← length of arr
   3:   max ←  $-\infty$ 
   4:   start ← 0
   5:   end ← 0
   6:   for i ← 0 to n do
   7:     total ← 0
   8:     for j ← i to n do
   9:       total ← total + arr[j]
  10:       if total ≥ max then
  11:         max ← total
  12:         start ← i
  13:         end ← j
  14:   return arr[start..end]
```

N.B. If the result is expected to be a single value, the function should return *max*.

2. It returns the least negative number in the array.
3. Strassen
- 4.

$$\begin{aligned} C &= \begin{bmatrix} 1 & 3 \\ 7 & 5 \end{bmatrix} \begin{bmatrix} 6 & 8 \\ 4 & 2 \end{bmatrix} \\ &= \begin{bmatrix} \begin{bmatrix} 1 \\ 7 \end{bmatrix} & \begin{bmatrix} 3 \\ 5 \end{bmatrix} \end{bmatrix} \begin{bmatrix} \begin{bmatrix} 6 \\ 4 \end{bmatrix} & \begin{bmatrix} 8 \\ 2 \end{bmatrix} \end{bmatrix} \end{aligned}$$