Maximum Subarray

⎣→ Given array — figure out max sum we can come up w/ using any sub array

$$[-2, 1, -3, 4, -1, 2, 1, -5, 4]$$

look at every comb of sums

Start   End $n \cdot n$ or n^2 pairs
  n   n

to sum up takes another $O(n)$ time
(so it is $O(n^3)$

for n in nums:
  sum += n
  if (sum < 0) $O(n)$
    sum = 0
  max sum = max (max sum, sum) $O(n)$
  return max sum