

# Array-1

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## Minimum Subarray Sum

[2, -1, 2, 3, -9, 5, 1]

① Initial  $\rightarrow$  Kadane's Algo

Cur-Sum = 0 (CS)

Max-Sum = INT\_MIN (MS)

i=0

$$CS = 0 + 2 = 2$$

$$MS = (\text{INT\_MIN}, 2) = 2$$

i=1

$$CS = 2 - 1 = 1$$

$$MS = m(2, 1) = 2$$

i=2

$$CS = 1 + 2 = 3$$

$$MS = m(2, 3) = 3$$

i=3

$$CS = 3 + 3 = 6$$

$$MS = m(3, 6) = 6$$

i=4

$$CS = 6 + (-9) = -3$$

$$MS = m(6, -3) = 6$$

$$CS < 0 \Rightarrow CS = 0$$

i=5

$$CS = 0 + 5 = 5$$

$$m = (6, 5) = 6$$

i=6

$$CS = 5 + 1 = 6$$

$$MS = m(6, 6) = 6$$

$$\boxed{\text{So } MS = 6}$$