[-2, 0, 3, -5, 2, -1]

[-2, 0, 3, -5, 2, -1]

1-[0, 2]

$$[-2, 0, 3, -5, 2, -1]$$

$$[-2, 0, 3, -5, 2, -1]$$

$$[-2, 0, 3, -5, 2, -1]$$

1-[0, 2]
$$[-2, 0, 3, -5, 2, -1]$$

 $(-2) + 0 + 3 = 1$

$$[-2, 0, 3, -5, 2, -1]$$

$$1-[0, 2] [-2, 0, 3, -5, 2, -1]$$

$$(-2) + 0 + 3 = 1$$

$$2-[2, 5]$$

$$[-2, 0, 3, -5, 2, -1]$$

$$1-[0, 2] [-2, 0, 3, -5, 2, -1]$$

$$(-2) + 0 + 3 = 1$$

$$2-[2, 5] [-2, 0, 3, -5, 2, -1]$$

$$[-2, 0, 3, -5, 2, -1]$$

$$1-[0, 2] [-2, 0, 3, -5, 2, -1]$$

$$(-2) + 0 + 3 = 1$$

$$2-[2, 5] [-2, 0, 3, -5, 2, -1]$$

$$[-2, 0, 3, -5, 2, -1]$$

$$1-[0, 2] \quad [-2, 0, 3, -5, 2, -1]$$

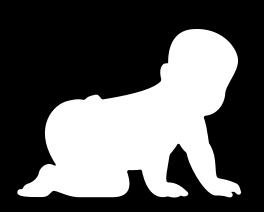
$$(-2) + 0 + 3 = 1$$

$$2-[2, 5] \quad [-2, 0, 3, -5, 2, -1]$$

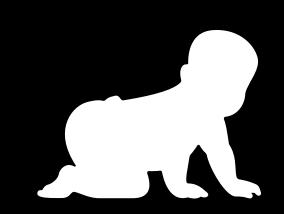
$$3 + (-5) + 2 + (-1) = -1$$

Time Complexity: mxn

Time Complexity: mxn

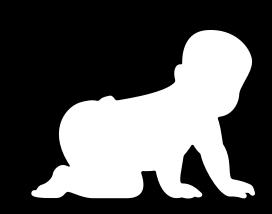


Time Complexity: mxn



Can we do better?

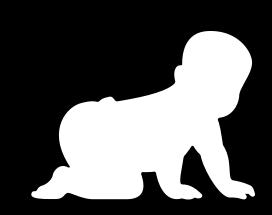
Time Complexity: mxn



Can we do better?



Time Complexity: mxn



Can we do better?



PREFIX SUM

[-2, 0, 3, -5, 2, -1]

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

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

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

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

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

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

PREFIX SUM

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

if left is 0 then result is nums[right]

PREFIX SUM

if left is !0 then result is nums[right]-nums[left-1]

PREFIX SUM

if left is !O then result is nums[right]-nums[left-1]

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

PREFIX SUM

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

if left is !O then result is nums[right]-nums[left-1]

$$[-2, -2, 1, -4, -2, -3]$$
 Sol: $-3-(-2)=-1$