Problem # 152 : Maximum Product Subarray

Solution:

The brute force solution is O(n^2).

The optimal solution is Kadane’s algorithm

<https://www.youtube.com/watch?v=dxCxBxLIh-Y>

class Solution:

def maxProduct(self, nums: List[int]) -> int:

if len(nums) == 0:

return(0)

max\_pro, min\_pro = nums[0], nums[0]

result = max\_pro

for i in range(1, len(nums)):

curr = nums[i]

temp\_max = max(curr, max\_pro \* curr, min\_pro \* curr)

min\_pro = min(curr, max\_pro \* curr, min\_pro \* curr)

max\_pro = temp\_max

result = max(result, max\_pro)

return(result)