input: array of prices, where prices[i] is price of stock at day i

find max profit by, choose another day to sell that stock.

buy sell

Max Profit = Sell − buy

b = 0

s = 1

[7, 1, 5, 3, 6, 4]

b s

b s

Profit = s − b = 1 − 7 = −6

if P < 0

b = s;

~~s++;~~

if P > MaxProfit

MaxProfit = P

5 − 1 = 4

s++;

return MaxProfit

MaxProfit = 0

= ~~0~~

= 5

3 − 1 = 2

6 − 1 = 5

4 − 1 = 3

[2, 1, 4]

b s

b s

Max Profit = 3

P = S − b = 1 − 2 = −1

P = 4 − 1 = 3

[2, 1, 2, 1, 0, 1, 2]

b s s s

b s

Max Profit = 1

= 2

1 − 2 = −1

1 − 1 = 0

~~1 = 0~~

0 − 1 = −1

1 − 0 = 1

~~0 1 2~~

2 − 0 = 2 ✓