

Array -6

14 November 2025 17:19

Stock Buy & Sell

{7, 1, 5, 3, 6, 4}, n=6

Initially:

max-profit = 0

best-buy = 7

i=0 (bb)

7 ≠ 7

best-buy = min(7, 7) => 7

i=1

1 ≠ 7

best-buy = min(1, 7) => 1

i=2

5 > 1

max-profit = max(0, 5-1) => 4

best-buy = min(5, 1) => 1

i=3

3 > 1

max-profit = max(4, 3-1) => 4

best-buy = min(3, 1) => 1

i=4

6 > 4

max-profit = max(4, 6-1) => 5

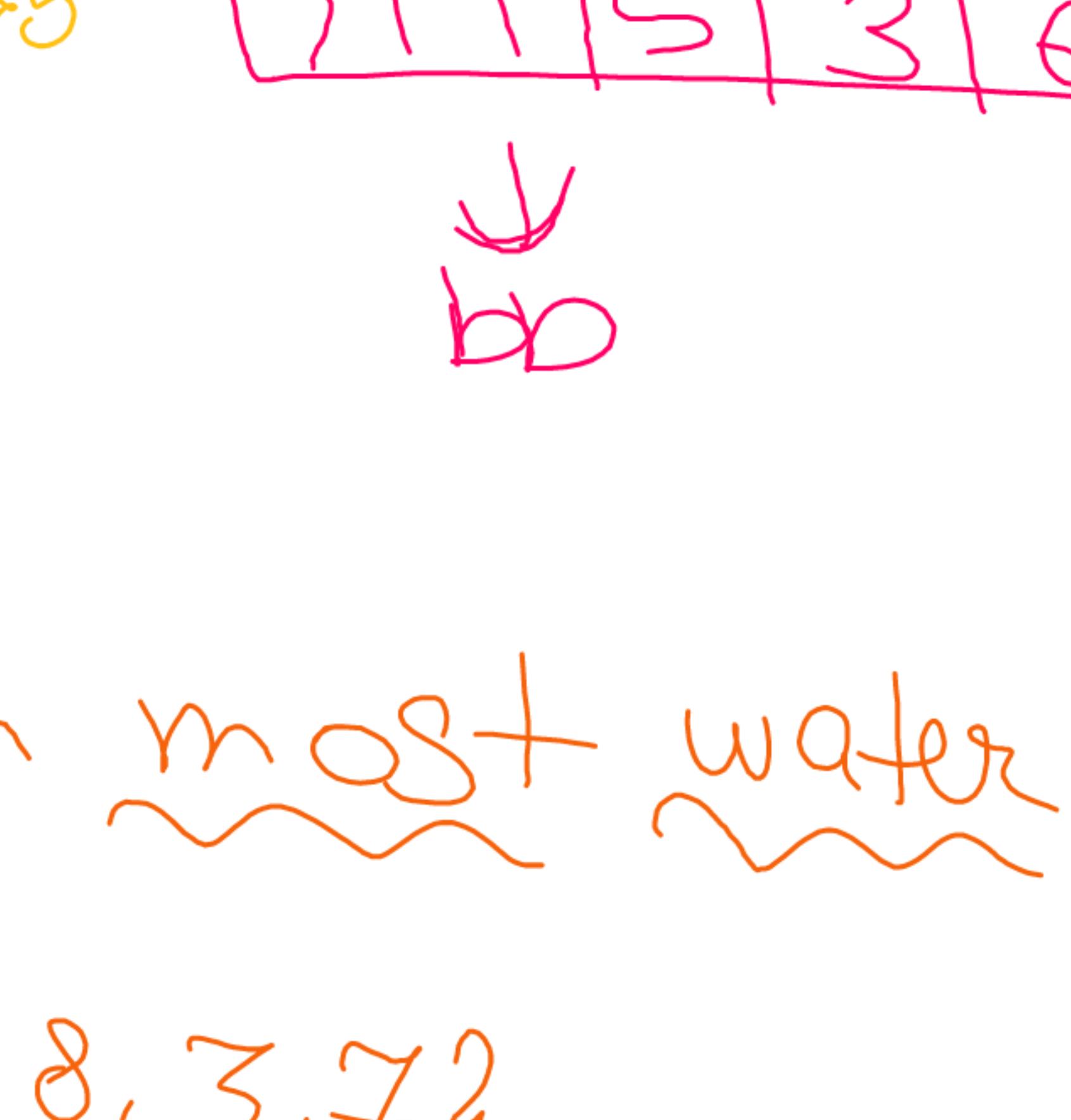
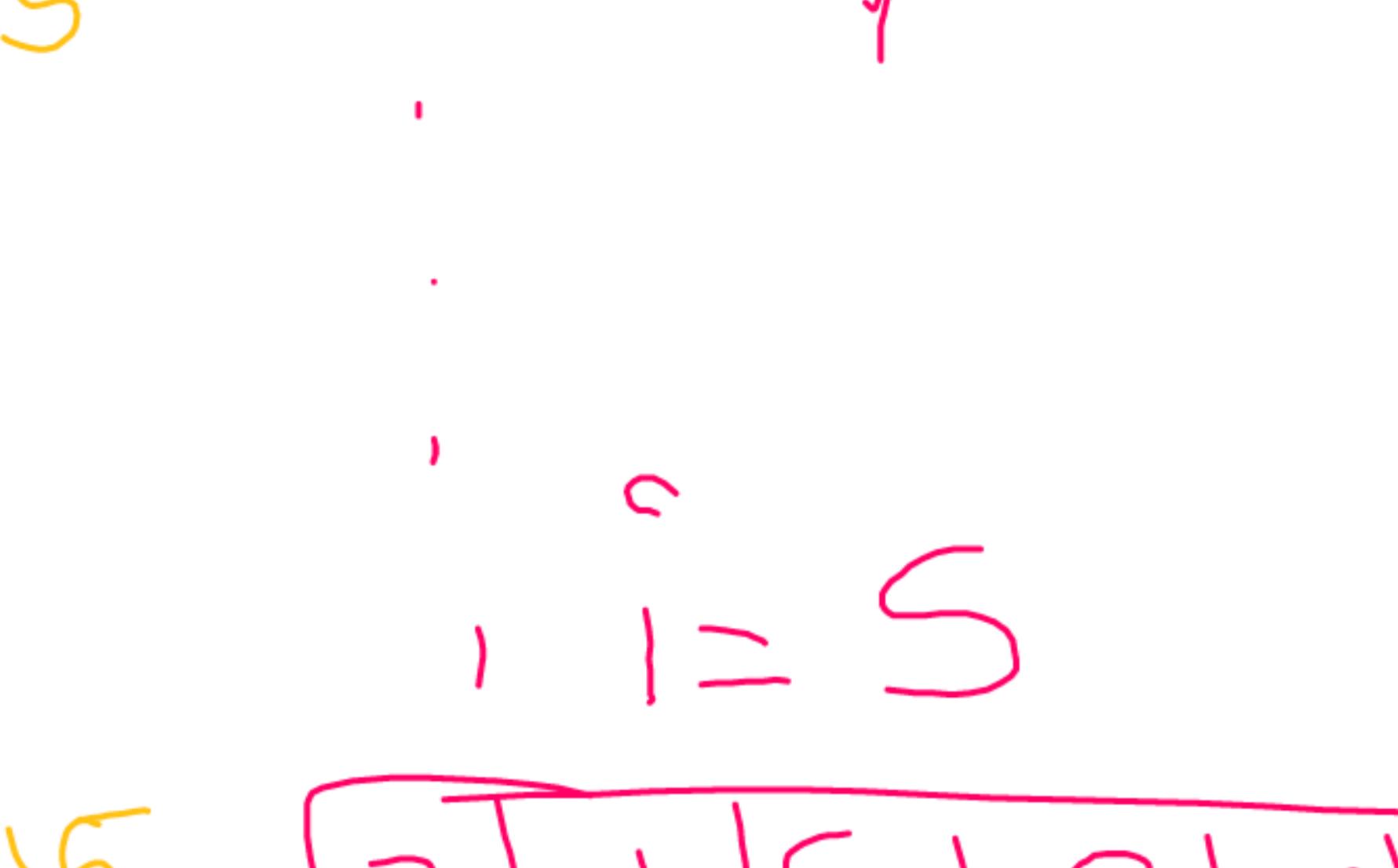
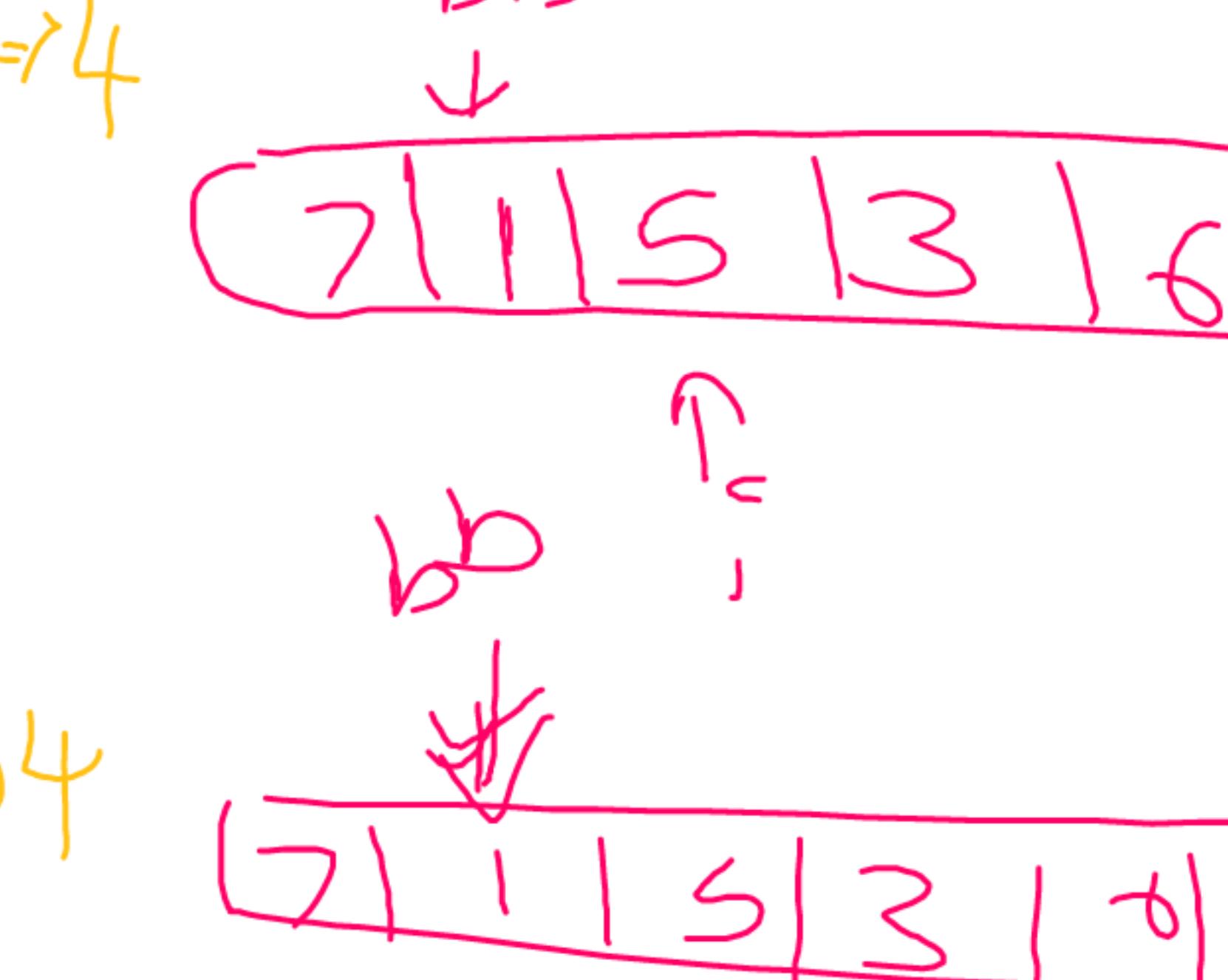
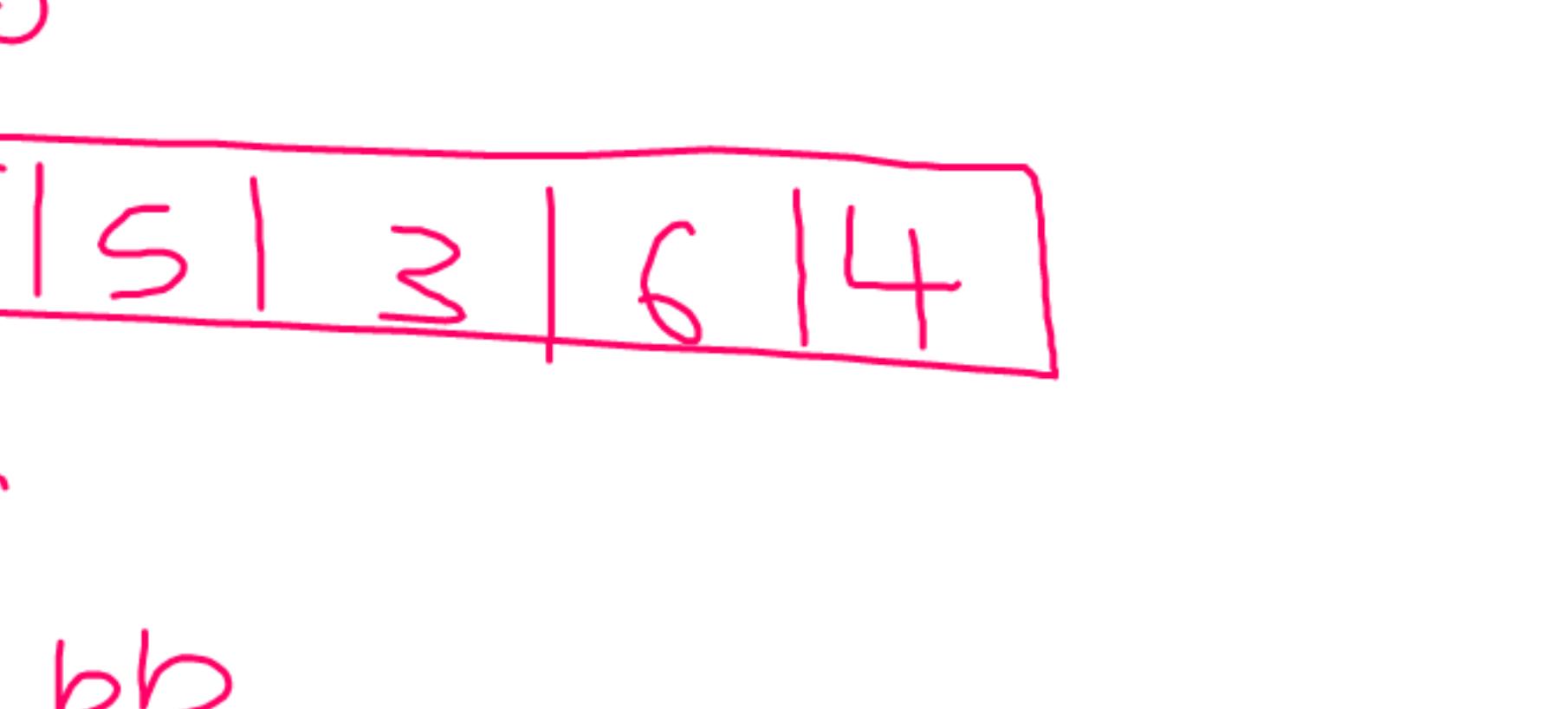
best-buy = min(6, 4) => 2

i=5

4 ≠ 4

best-buy = 1

loop ends => Return max-profit => 5



Container with most water

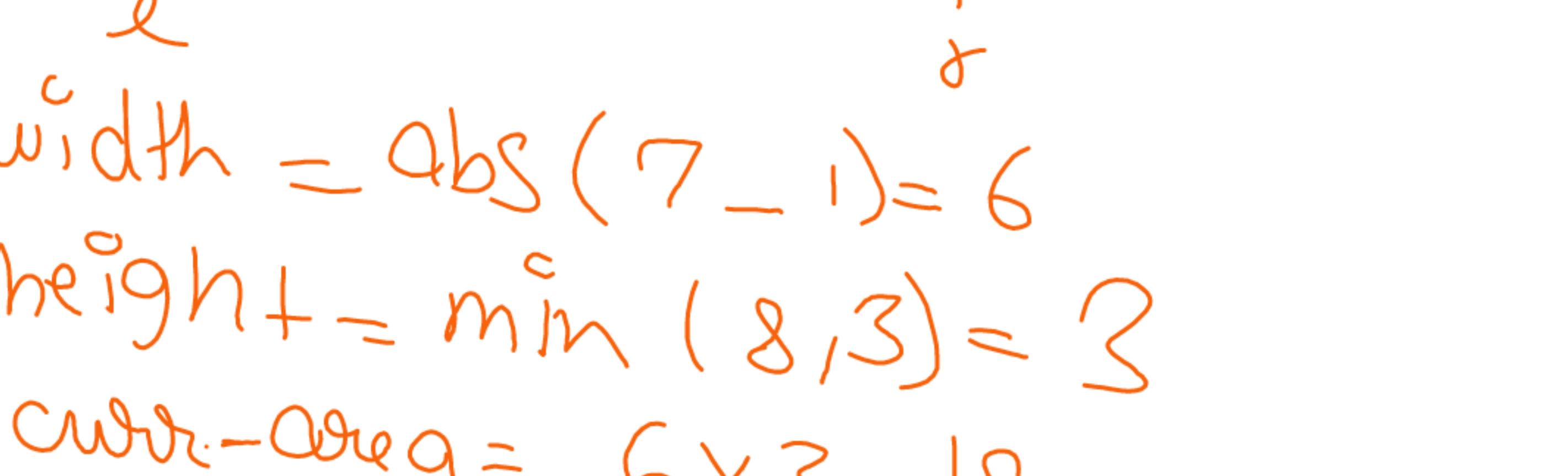
{1, 8, 6, 2, 5, 4, 8, 3, 7}

Initially:

left = 0, right = n-1

width = 0, height = 0

curr-area = 0, max-area = 0



while (l < r) → loop starts

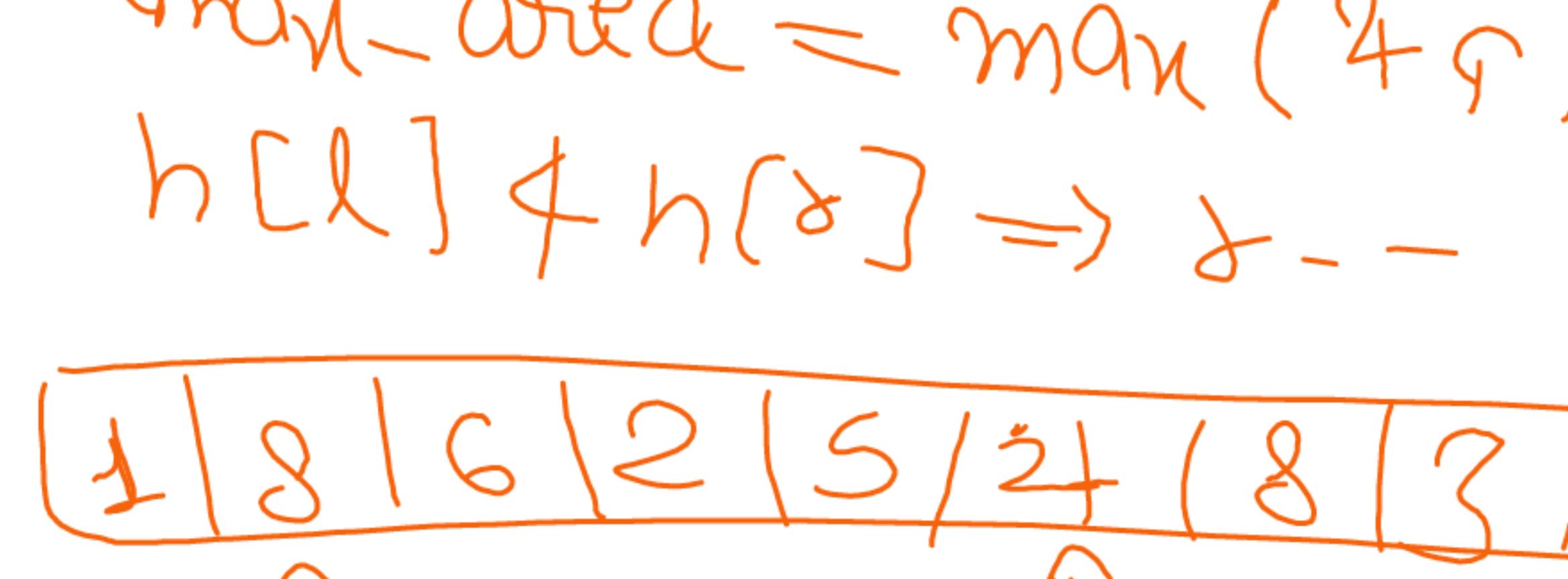
width = abs(r-l) = 8

height = min(7, 1) = 1

curr-area = 8 * 1 = 8

max-area = max(0, 8) = 8

h[l] < h[r] => l++



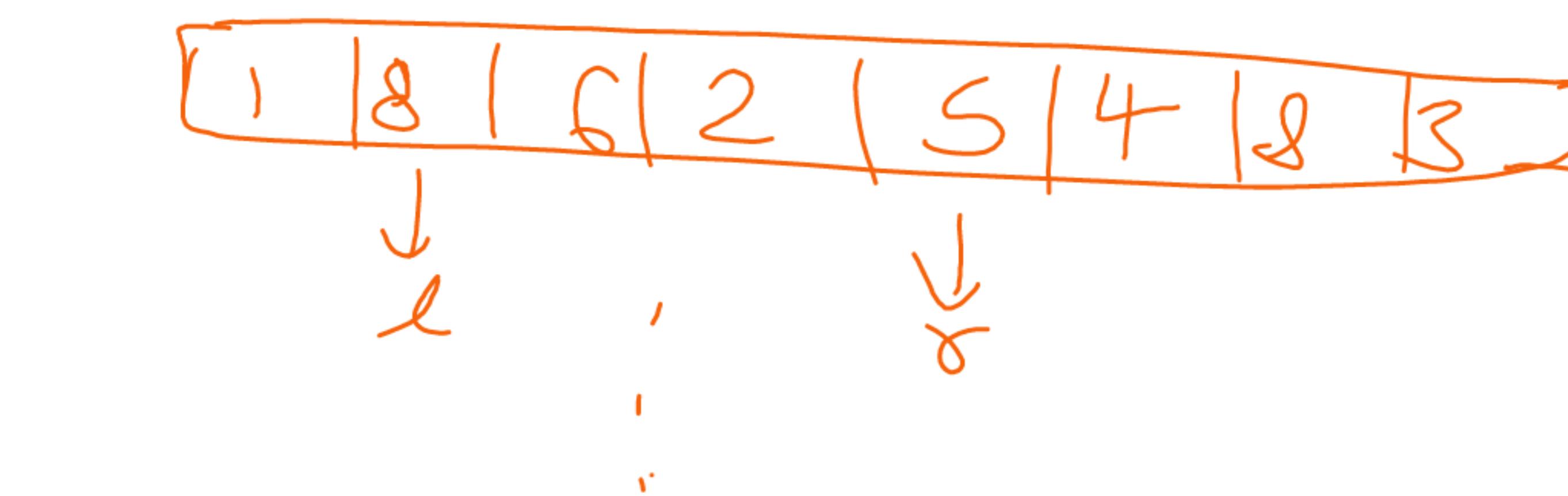
width = abs(r-l) = 7

height = min(8, 7) = 7

curr-area = 7 * 7 = 49

max-area = max(8, 49) = 49

h[l] > h[r] => r--



width = abs(r-l) = 6

height = min(8, 3) = 3

curr-area = 6 * 3 = 18

max-area = max(49, 18) = 49

h[l] > h[r] => r--

width = abs(r-l) = 5

height = min(8, 8) = 8

curr-area = 5 * 8 = 40

max-area = max(49, 40) = 49

h[l] > h[r] => r--

width = abs(r-l) = 4

height = min(8, 4) = 4

curr-area = 4 * 4 = 16

max-area = max(49, 16) = 49

h[l] > h[r] => r--

width = abs(r-l) = 3

height = min(8, 3) = 3

curr-area = 3 * 3 = 9

max-area = max(49, 9) = 49

h[l] > h[r] => r--

width = abs(r-l) = 2

height = min(8, 2) = 2

curr-area = 2 * 2 = 4

max-area = max(49, 4) = 49

h[l] > h[r] => r--

width = abs(r-l) = 1

height = min(8, 1) = 1

curr-area = 1 * 1 = 1

max-area = max(49, 1) = 49

h[l] > h[r] => r--

width = abs(r-l) = 0

height = min(8, 0) = 0

curr-area = 0 * 0 = 0

max-area = max(49, 0) = 49

h[l] > h[r] => r--

width = abs(r-l) = 1

height = min(8, 1) = 1

curr-area = 1 * 1 = 1

max-area = max(49, 1) = 49

h[l] > h[r] => r--

width = abs(r-l) = 2

height = min(8, 2) = 2

curr-area = 2 * 2 = 4

max-area = max(49, 4) = 49

h[l] > h[r] => r--

width = abs(r-l) = 3

height = min(8, 3) = 3

curr-area = 3 * 3 = 9

max-area = max(49, 9) = 49

h[l] > h[r] => r--

width = abs(r-l) = 4

height = min(8, 4) = 4

curr-area = 4 * 4 = 16

max-area = max(49, 16) = 49

h[l] > h[r] => r--

width = abs(r-l) = 5

height = min(8, 5) = 5

curr-area = 5 * 5 = 25

max-area = max(49, 25) = 49

h[l] > h[r] => r--

width = abs(r-l) = 6

height = min(8, 6) = 6

curr-area = 6 * 6 = 36

max-area = max(49, 36) = 49

h[l] > h[r] => r--

width = abs(r-l) = 7

height = min(8, 7) = 7

curr-area = 7 * 7 = 49

max-area = max(49, 49) = 49

h[l] > h[r] => r--

width = abs(r-l) = 8

height = min(8, 8) = 8

curr-area = 8 * 8 = 64

max-area = max(49, 64) = 64

h[l] > h[r] => r--

width = abs(r-l) = 9

height = min(8, 9) = 8

curr-area = 8 * 8 = 64

max-area = max(49, 64) = 64

h[l] > h[r] => r--

width = abs(r-l) = 10

height = min(8, 10) = 8