**Time Complexity**

#include <stdio.h>

#include "RecursiveCandels2.h"

MaxheightCount iterative\_candles(int \*candles, int n) {

MaxheightCount result = {.height = candles[0], .count = 0};----🡪 O(1)

int max\_height = candles[0];

int count = 0;

for (int i = 0; i < n; i++) {----🡪 O(n)

if (candles[i] > max\_height) {----🡪 O(1)

max\_height = candles[i];

count = 1;

} else if (candles[i] == max\_height) {----🡪 O(1)

count++;

}

}

result.height = max\_height;

result.count = count; ----🡪 O(1)

return result;----🡪 O(1)

}

int recursive\_birthdayCandles2(int \*candles, int n) {

if (n <= 0) {

return 0;

}

MaxheightCount max\_height\_count = iterative\_candles(candles, n);

---🡪O(n)

return max\_height\_count.count; ----🡪 O(1)

}

**Time Complexity : T(n) = O(n)**