# ANÁLISIS DE COMPLEJIDAD EJERCICIO #11 - FIRST AND LAST OCCURRENCES

## Análisis método candido

$$2 + 2 + \sum_{i=0}^{n} (2 + 1 + 2 + 2 + 1 + 1 + 1 + 2 + 1) + 2$$

$$6 + \sum_{i=0}^{n} (13)$$

$$6 + 13 * n$$

$$T(n) \in O(n)$$

## Análisis método óptimo

### Método recursivo

$$1 + 3 + 9 + 2 + T(\frac{n}{2})$$

$$15 + T(\frac{n}{2})$$

$$T(n) = T(\frac{n}{2}) + O(1)$$

$$O(n^c * logn)$$

$$O(n^0 * logn)$$

$$O(1 * logn)$$

$$O(logn)$$

$$T(n) \in O(logn)$$

### Método Decorador

$$2 + logn + logn + 1$$

$$3 + 2logn$$

$$T(n) \in O(logn)$$