ANÁLISIS DE COMPLEJIDAD EJERCICIO #5 - WALK ON A MULTIPLICATION TABLE

Análisis método candido

$$2 + \sum_{i=1}^{n}(2 + 1 + 2\sum_{j=1}^{n}(2 + 1 + 2 + 3 + 1 + 3 + 1 + 1 + 1 + 2) + 1 + 2) + 1$$

$$2 + \sum_{i=1}^{n}(5\sum_{j=1}^{n}(17) + 3) + 1$$

$$2 + \sum_{i=1}^{n}(8\sum_{j=1}^{n}(17)) + 1$$

$$3 + \sum_{i=1}^{n}(8\sum_{j=1}^{n}(17))$$

$$3 + \sum_{i=1}^{n}(8 * (17n))$$

$$3 + 8\sum_{i=1}^{n}(17n)$$

$$3 + 8(n * 17n)$$

$$3 + 8(17n^2)$$

$$3 + 136n^2$$

$$T(n) \in O(n^2)$$

Análisis método óptimo

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

$$2 + \sum_{i=1}^{\sqrt{n}} (13) + 2$$

$$4 + \sum_{i=1}^{\sqrt{n}} (13)$$

$$4 + \sqrt{n} * 13$$

$$4 + 13\sqrt{n}$$

$$T(n) \in O(\sqrt{n})$$