ANÁLISIS DE COMPLEJIDAD EJERCICIO #3 - FAVORITE SEQUENCE

Análisis método cándido:

$$T(n) = 3 + 2 + 1 + \sum_{p=0}^{n}(\sum_{i=0}^{n}(5 + 1 + 2 + 3 + 2 + 3 + 1 + 2)1 + 2) + 1$$

$$T(n) = 7 + \sum_{p=0}^{n}(3 * \sum_{i=0}^{n}(19))$$

$$T(n) = 7 + \sum_{p=0}^{n}(3 * 19n)$$

$$T(n) = 7 + 57n$$

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

Análisis método óptimo:

$$T(n) = 3 + 2 + 2 + 3 + 1 + \sum_{i=0}^{n/2}(2 + 2 + 3 + 2 + 2 + 2 + 1) + 1$$

$$T(n) = 12 + \sum_{i=0}^{n/2}(14)$$

$$T(n) = 12 + 14\frac{n}{2}$$

$$T(n) = 12 + 7n$$

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