

Programa (n):

sum = 0

for i=1 to n:

for j=1 to i:

sum = sum + 1

for k=0 to n:

A[k] = k

	#	Costo
	1	C_1
	$n+1$	C_2
	$\sum_{i=2}^{n+1} i = \left(\sum_{i=1}^{n+1} i\right) - 1 = \frac{(n+1)(n+2)}{2} - 1 = \frac{n^2}{2} + \frac{3n}{2}$	C_3
	$\sum_{i=1}^n i = \frac{n(n+1)}{2} = \frac{n^2}{2} + \frac{n}{2}$	C_4
	$n+2$	C_5
	$n+1$	C_6

$$T(n) = C_1 + C_2(n+1) + C_3\left(\frac{n^2}{2} + \frac{3n}{2}\right) + C_4\left(\frac{n^2}{2} + \frac{n}{2}\right) + C_5(n+2) + C_6(n+1)$$

$$T(n) = \underbrace{C_1}_{\text{blue}} + \underbrace{C_2 n}_{\text{orange}} + \underbrace{C_2}_{\text{blue}} + \underbrace{\frac{C_3}{2} n^2}_{\text{green}} + \underbrace{\frac{3C_3}{2} n}_{\text{orange}} + \underbrace{\frac{C_4}{2} n^2}_{\text{green}} + \underbrace{\frac{C_4}{2} n}_{\text{orange}} + \underbrace{C_5 n}_{\text{orange}} + \underbrace{2C_5}_{\text{blue}} + \underbrace{C_6 n}_{\text{orange}} + \underbrace{C_6}_{\text{blue}}$$

$$T(n) = \underbrace{\frac{1}{2}(C_3 + C_4)}_a n^2 + \underbrace{\left(C_2 + \frac{3}{2}C_3 + \frac{1}{2}C_4 + C_5 + C_6\right)}_b n + \underbrace{(C_1 + C_2 + 2C_5 + C_6)}_c$$

$$T(n) = an^2 + bn + c$$

$\Rightarrow n^2$ proporcional a n^2

	<i>Posición</i>					
Iteración	1	2	3	4	5	6
"0"	8	5	6	2	1	7
1	5	8	6	2	1	7
2	5	6	8	2	1	7
3	2	5	6	8	1	7
4	1	2	5	6	8	7
5	1	2	5	6	7	8
6	1	2	5	6	7	8

Por inserción