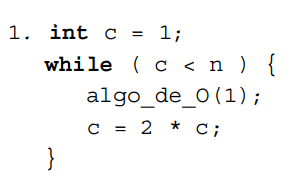
**Ejercicio 8**

Para cada uno de los algoritmos presentados calcule el T(n).

a. Expresar en función del tiempo de ejecución.

b. Establecer el orden de dicha función usando notación Big-Oh



R c

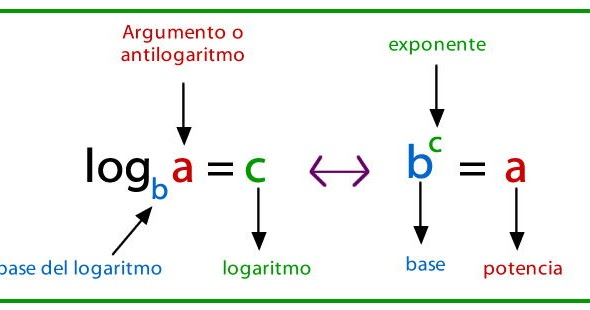
1 2

2 4

3 8

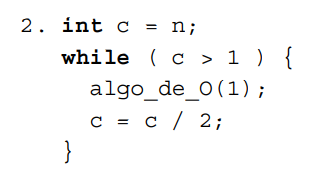
4 16

k 2k



2k < n

k < log2(n)



R c

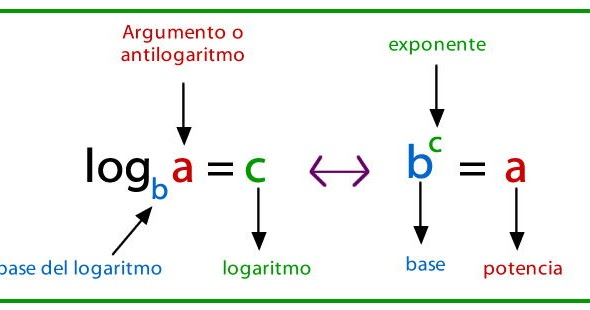
1 n

2 n/2

3 n/4

4 n/8

k n/2(k-1)

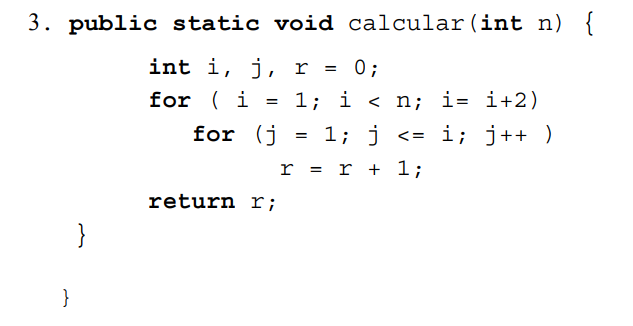


> 1

n > 2(k-1)

log2(n) = k-1

log2(n) + 1 = k



for externo

R i

1 1

2 3

3 5

4 7

k 2k-1

n < 2k-1

< k

ct1

=

ct1 + ct3 ( =

ct1 + ct3 () =

ct1 + ct3 () =

ct1 + ct3 () =

ct1 + ct3 () =

ct1 + ct3 (()/2)

ct1 + ct2 (())

ct1 + ct2 (())

ct1 + ct2 → O(n2)