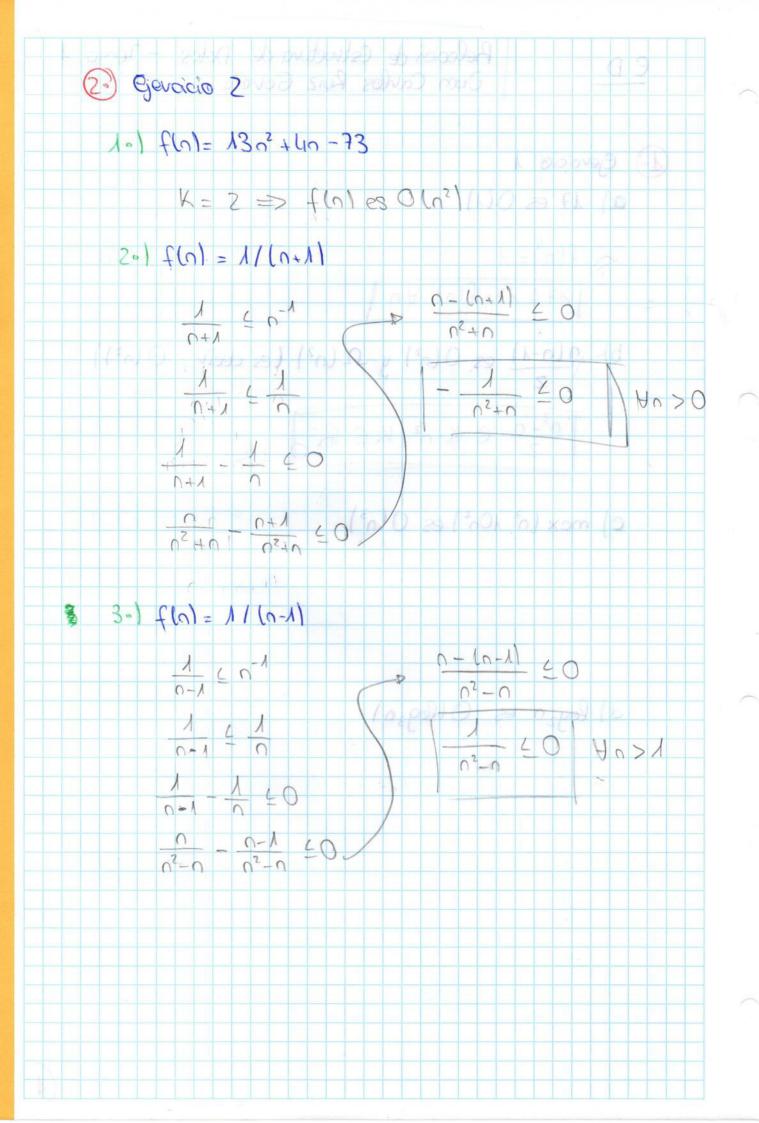
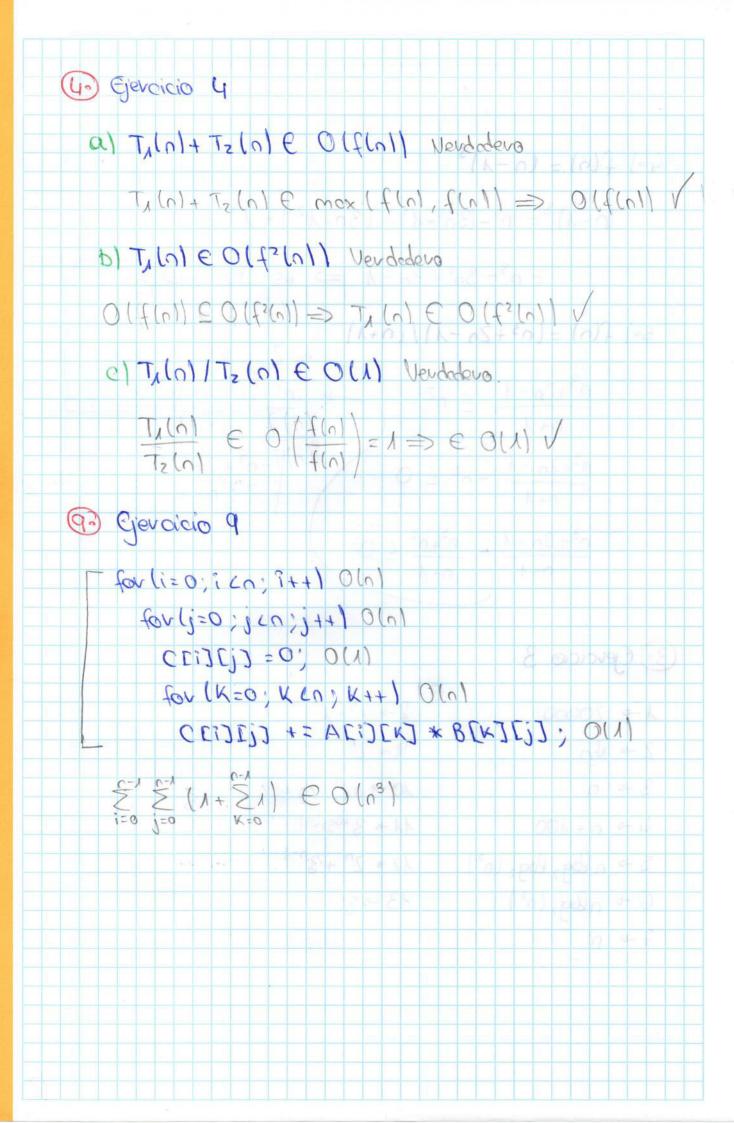
Relación de Estructura de Datos - Tema 1 E D Duan Caulos Ruiz Govera (1) Ejevaicio 1 a) 17 es 0(1) f(n)=1 NA FN3 O EN AU b) 1(n-1) es 0(n2) y 12(n2) (es decir, 0(n2)) n^2-n e K n^2 , K e R 0) mex (13, 10n2) es 0 (13) d) logen es O (logen)



40) flo) = (0-1/3 $(n-1)^3 = n^3 - (3n^2 - 1) + (3n - 1^2) - 1^3 =$ $= 0^3 - 30^2 + 30 - 1 \implies es O(0^3) \implies K = 3$ 50) f(n) = (n3 + 2n -1)/(n+1) D 03+20-1-(03+02) LO n3+2n-1 2 n2 140 0+1 $n^3 + 2n - 1 - n^2 \le 0$ 1-02+50-1 EO AU >0 0+1 $n^3 + 2n - 1 - n^3 + n^2 \angle 0$ (B.) Ejercicio 3 8-0 03+1 1-00000 a-1 9-0-50 2-0 10 3-00 10-0 020 11 - 3 log 2 (n) U-0 0+100 12+ 20+30-1 5-0 n log, log, (n2) 6-0 nlog2 (n2) 13-031 7-0 P2



(1) Geracio II

(C) Gjerojcio 10 wid generalo lint a) L int ? , j , K ; for(); 120; 141 for (j= i+1; j L=0; j++1 for [k=1; KL=1; K++) Globel += K* OUN $= \sum_{i=1}^{3} \frac{1}{i} = \sum_{i=1}^{3} \frac{1}{i$ $= \frac{1}{2} \sum_{i=1}^{2} \frac{1}{2} + \frac{1}{2} \sum_{i=1}^{2} \frac{1}{2} + \frac{1}{2} \sum_{i=1}^{2} \frac{1}{2} + \frac{1}{2} \sum_{i=1}^{2} \frac{1}{2} = \frac{$ $\frac{1}{2}\sum_{i=1}^{2} 1 = \frac{1}{2} \cdot (n-1) = \frac{1}{2} \cdot \frac{1$ $= \frac{n^2}{2} \cdot \frac{2n-2}{2} = \frac{2n^3-2n^2}{2} = \frac{n^3-n^2}{2} =$

(1) Gevalor M

for (
$$i=0$$
; $i; $i+1$)

 $if(i \% z) \{ OUN \}$

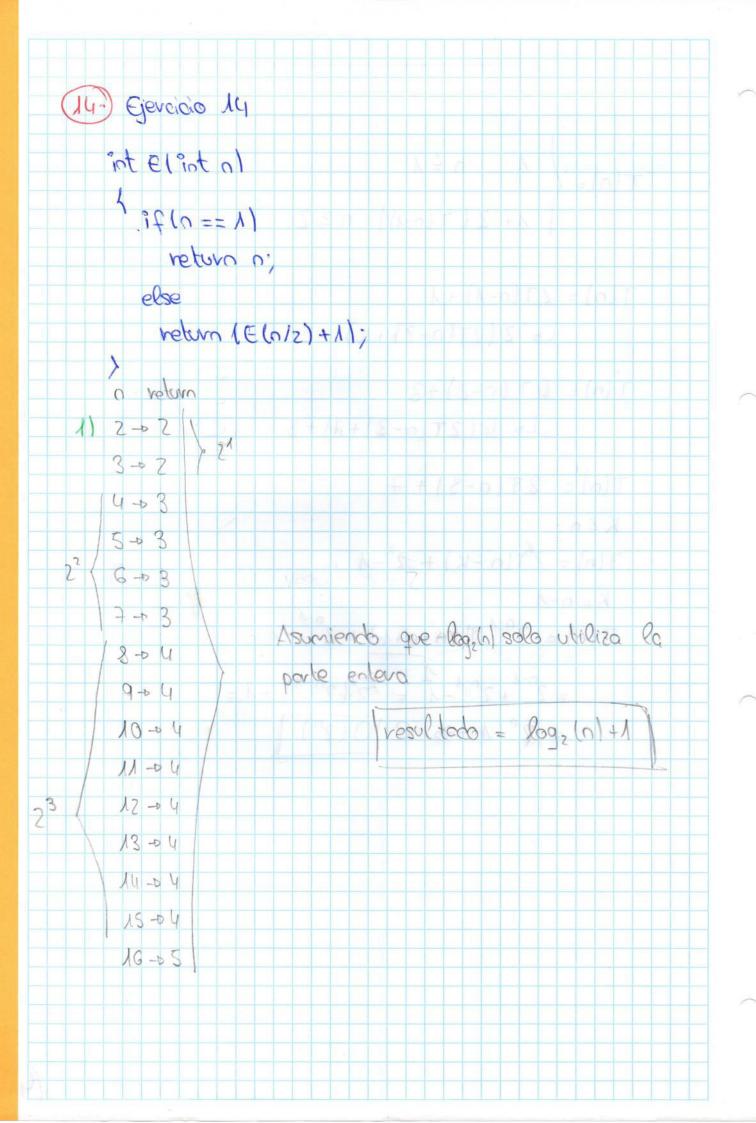
for ($j=i$; $j; $j+1$)

 $x *=i$; $O(M)$

for ($j=M$; $j)

 $y *=j$; $O(M)$
 $y *=j$; $o(M)$$$$

0 41 1+2(+(0-1)) 0 ≥ 2 K+ (K-n)TS = [n]T Lo Z (2T(n-2)+1)+10000 moder T(n)= 47(n-2)+3 Lo 4(2T(n-3)+1)+3 T(n)= 8T(n-3)+7 KLO T(n) = 2xT(n-x) + 2x-1 K= 0-1 T(n) = 20-1 T (n-n+1) + 20-1 = = 2 + 2 - 1 = 2 (2 - 1) - 1 = = 2°-1 => € 10(2°1)



b) $\lceil (0/2) + \lambda \rceil \geq 2$ T(0) T(0) = T(0/2) +1 0= 2m $L(5u) = L(\frac{5}{5u}) + 1$ T(5w)= T(5w-1)+1 10-115w-5/47 T(2m) = T(2m-2) + 2T(2m) = T(2m-3) + 3 = T(2m-x)+K K=m U= Sw T(2m) = 1 + m 2092 U = W T(n) = 1 + log20 € 0 (log₂ n)