int GT(int n)

{

if(n == 1)

return 1;

return n \* GT(n – 1);

}

♣

T(n) = C1 (n = 1)

T(n) = T(n – 1) + C2(n>1)

→T(n) = T(n – 2) + C2 + C2 = T(n-2) + 2 \* C2

⇔T(n) = T( n – 3) + C2 + 2 \* C2 = T(n – 3) + 3 \* C2

→T(n) = T(n – k) + k \* C2

Mà n – k = 1 → k = n – 1\

→ T(n) = T(n – n + 1) + n\* C2 – C2 = n\*C2 + C1 – C2

**→ T(n) = n \* C2 + C1 – C2 ≈ O(n)**