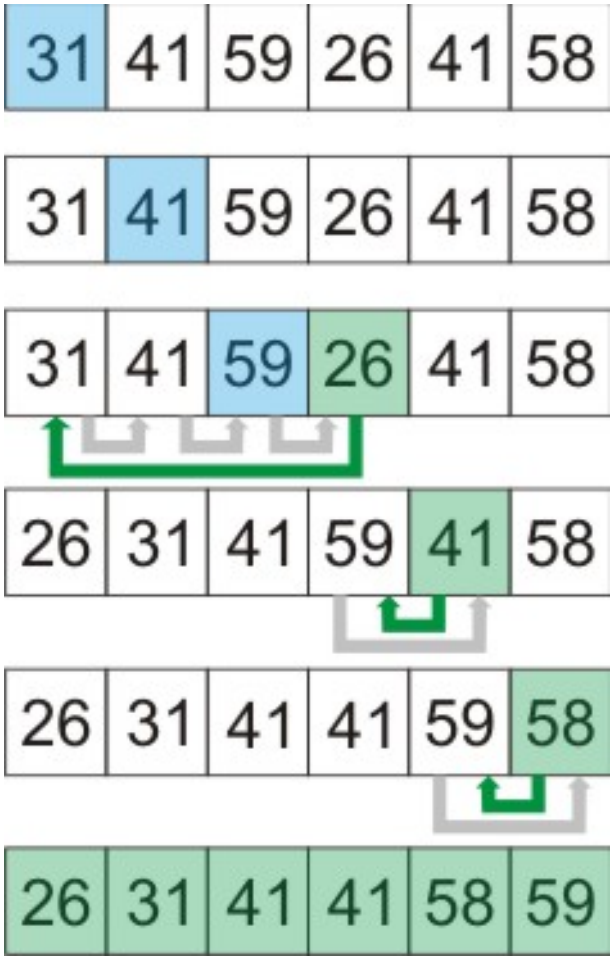
Exercises 2.1

nirodriguezsa

October 2018

1 Insertion-sort



2 Algorithm 1 Non-increasing Insertion-Sort(A)

1: **for** j = 2 to A.length do
2: key = A[j]
4: $i = j - 1$
5: **while** i >0 and A[i] <key do
6: A[i + 1] = A[i]
7: $i = i - 1$
8: end **while**
9: A[i + 1] = key
10: end for

3 Linear Search

procedimiento BUSQUEDA-LINEAL(A,x)
v=NIL
i=0
while i <A.length do
NIL :no hay indice j <i tal que A[j]== x
Si A[i] == x entonces
v = i
NIL: encontrar j <A.length tal que A[j] == x
o en su ausencia return v

4 Adding n-bit

1: carry = 0
2: **for** i=n to 1 do
3: C[i + 1] = (A[i] + B[i] + carry) (mod 2)
4: **if** 2 ≤A[i] + B[i] + carry then
5: carry = 1
6: **else**
7: carry = 0
8: **end if**
9: **end for**
10: C[1] = carry