



# **Analysis of Algorithms**

Tomado del libro Cormen

# OUTLINE

- **Description**
- **Analysis**



# **Algoritmo Incógnito**

# Incógnito

**XXX(E/S int A[ ], p,r)**

**if  $p < r$**

**$q \leftarrow \text{PPP}(A,p,r)$**

**XXX(A,p,q-1)**

**XXX(A,q+1,r)**

# PPP

```
PPP(E/S int A[ ], p, r)  
{ pivot ← A[p]  
  i ← p  
  j ← r  
  while i < j do  
    while (A[i] ≤ pivot AND i ≤ r) do  
      i ← i+1  
    endWhile  
    while (A[ j ] > pivot AND j ≥ p) do  
      j ← j-1  
    endWhile  
    if i < j then  
      swap( A[i], A[j])  
    endif  
  end-while  
  swap ( A[p] , A[ j] )  
  return j  
}
```

**Hacer el seguimiento con los datos:**  
**XXX(A,1,8)**

**A**

1	2	3	4	5	6	7	8
4	8	7	1	3	5	6	2