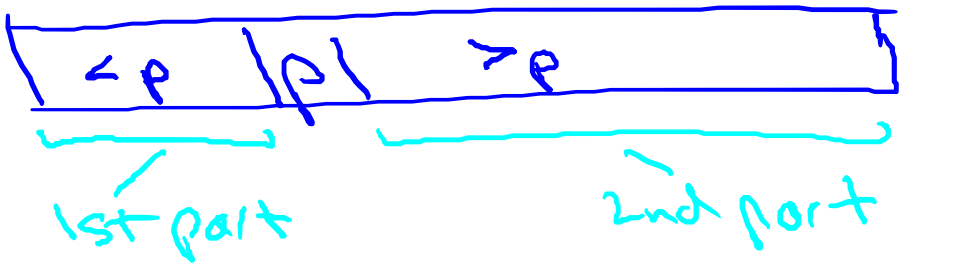
QuickSort: High-Level Description

[Hoare circa 1961]

QuickSort (array A, length n)

- if n = 1 return
- p = ChoosePivot(A,n)
- Partition A around p
- recursively sort 1st part
- recursively sort 2nd part

[currently unimplemented]



Pseudocode for Partition

Partition (A, l, r) [input ≈ A[l ... r]]

- p := A[l]
- i := l+1
- for j = l+1 to r
  - if A[j] < p [if A[j] > p, do nothing]
    - swap A[j] and A[i]
    - i := i+1
- swap A[l] and A[i-1]