

Partition

PARTITION(A, p, r)

```
1:  $x = A[r]$            // pivot element
2:  $i = p - 1$ 
3: for  $j = p$  to  $r - 1$  do
4:   if  $A[j] \leq x$  then
5:      $i = i + 1$ 
6:      $A[i] \leftrightarrow A[j]$ 
7:  $A[i + 1] \leftrightarrow A[r]$ 
8: return  $i + 1$ 
```