PARTITION(A, p, r)

1 $x = A[r]$
2 $i = p - 1$
3 **for** $j = p$ **to** $r - 1$
4   **if** $A[j] \leq x$
5          $i = i + 1$
6   exchange $A[i]$ with $A[j]$
7 exchange $A[i + 1]$ with $A[r]$
8 **return** $i + 1$