

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**  $i + 1$