Algorithmus Partition($A[l..r], p$)

Input : Array A, that contains the pivot p in the interval $[l, r]$ at least once.
Output : Array A partitioned in $[l..r]$ around p. Returns position of p.

```
while l ≤ r do
    while A[l] < p do
        l ← l + 1
    while A[r] > p do
        r ← r − 1
    swap(A[l], A[r])
    if A[l] = A[r] then
        l ← l + 1
return l-1
```