```
FIND-SPLIT-POINT(A, p, r, x)
1  low = p                                  // low end of search range
2  high = r + 1                             // high end of search range
3  while low < high                         // more than one element?
4      mid = ⌊(low + high)/2⌋               // midpoint of range
5      if x ≤ A[mid]                        // is answer q ≤ mid?
6          high = mid                       // narrow search to A[low : mid]
7      else low = mid + 1                   // narrow search to A[mid + 1 : high]
8  return low
```