## Algorithm 1 QuickSelect

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 \begin{array}{c} \textbf{procedure QuickSelect}(A,\,k,\,l\,,\,r) \\ \textbf{PRECONDIZIONE:} \ k \ \text{maggiore di zero e minore di } A.length \\ \textbf{if } l == r \ \textbf{then} \\ \textbf{return } l \\ \textbf{end if} \\ x = Partition(A,l,r) \\ \textbf{if } k == x \ \textbf{then} \\ \textbf{return } A[x] \\ \textbf{else if } k < x \ \textbf{then} \\ \textbf{return } QuickSelect(A,k,l,x-1) \\ \textbf{else} \\ \textbf{return } QuickSelect(A,k,x+1,r) \\ \textbf{end if} \\ \textbf{end procedure} \end{array}
```