

G.851

Class 9

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Problem: k-RMQ = find k smallest elements
in given range $A[i:j]$
given $O(n)$ space, $O(1)$ RMQ black box,
Solve k-RMQ without extra space (static)

(a) in $O(k \lg k)$ time

(b) in $O(k \lg \lg n)$ time