

ESERCIZIO SU CODE A PRIORITA

CANCELLA ELEMENTO (A, i)

$\text{if } i < 2 \text{ || } i > \text{HEAP-SIZE}(A)$

ESCI;

~~CANCELLA ELEMENTO~~

$\text{HEAP-SIZE}(A) \leftarrow \text{HEAP-SIZE}(A) - 1$

~~MAX-HEAPIFY (A, i)~~

% DOPO CANCELLATO L'ELEMENTO, RISTABILIAMO LA PROPRIETA' DELL'HEAP

$\text{KEY}(i) \leq \text{KEY}(\text{parent}(i))$

A

→ SOSTITUISCO $A[i]$ con un figlio

$A[i] \leftarrow A[2i]$

CANCELLA $A[2i]$

ESERCIZIO 1

DELETE (A, i)

$\text{DUP} \leftarrow A[\text{HEAP-SIZE}(A)]$

$A[\text{HEAP-SIZE}(A)] \leftarrow A[i]$

$A[i] \leftarrow \text{DUP}$

$\text{HEAP-SIZE}(A) \leftarrow \text{HEAP-SIZE}(A) - 1$

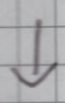
MAX-HEAPIFY (A, i)

DOPO AVER CANCELLATO

L'ELEMENTO, RISTABILIAMO LA

PROPRIETA' DELL'HEAP

$\text{KEY}(i) \leq \text{KEY}(\text{parent}(i))$



MAX-HEAPIFY (A, i)

$l \leftarrow \text{left}(i)$ $r \leftarrow \text{right}(i)$

$\text{if } l \leq \text{HEAP-SIZE}(A) \text{ AND } A[l] > A[i]$

then $\text{max} \leftarrow l$

else $\text{max} \leftarrow i$

$\text{if } r \leq \text{HEAP-SIZE}(A) \text{ AND } A[r] > A[\text{max}]$

$\text{max} \leftarrow r$

$\text{if } \text{max} \neq i$ then

SWAP $A[i] \leftrightarrow A[\text{max}]$

→ MAX-HEAPIFY (A, max)