$$T \leftarrow r =$$

if $i_l \leq r$
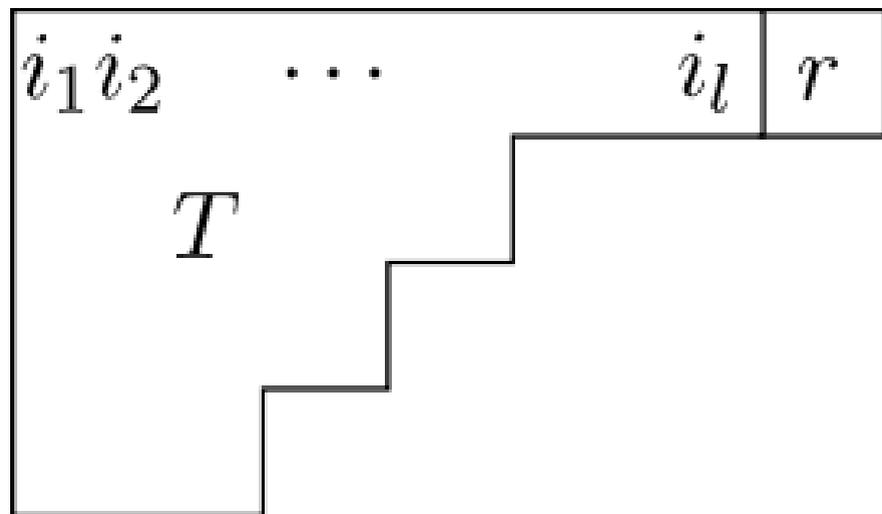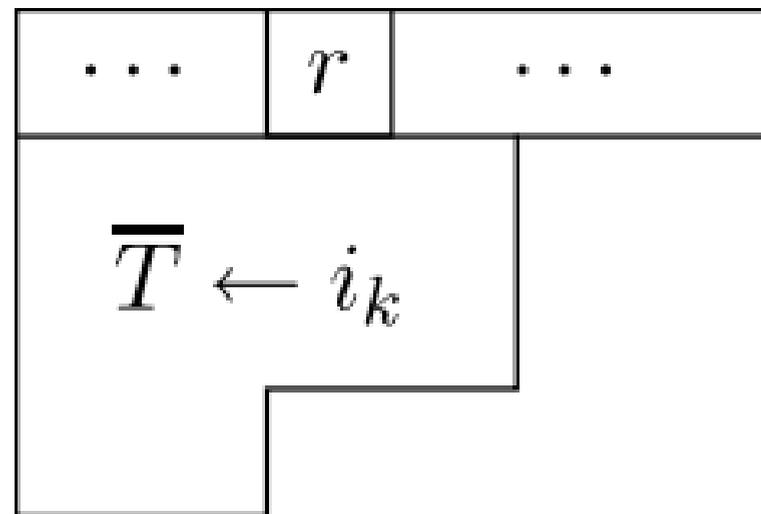
finished

if $i_{k-1} \leq r < i_k$

to be continued