Select(i, n)

1. Divide the n elements into groups of 5. Find the median of each 5-element group by rote.

2. Recursively Select the median x of the $\lfloor n/5 \rfloor$ group medians to be the pivot.

3. Partition around the pivot x. Let $k = \text{rank}(x)$.

4. **if** $i = k$ **then return** x
   elseif $i < k$
       then recursively Select the ith smallest element in the lower part
       else recursively Select the $(i–k)$th smallest element in the upper part