
Algorithm 1: Quick Sort Tce3

```
1 def quick_sort_tce3( $t, \ell, r$ ):  
2     while  $r - \ell > 15$  do  
3          $p \leftarrow \text{partition}(t, \ell, r)$   
4         if  $p - \ell \leq r - p$  then  
5              $\text{quick\_sort\_tce3}(t, \ell, p)$   
6              $\ell \leftarrow p$   
7         else  
8              $\text{quick\_sort\_tce3}(t, p, r)$   
9              $r \leftarrow p$   
10    insertion_sort( $t, \ell, r$ )  
11
```
