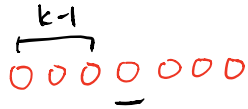


$k=4$



to look for  $k$ th element,  
there should be  $k-1$  elements  
on the left

$k=4$ . [ 1. 9. 5. 3. 2. 7. 4. 6 ].

first partition

[ 1. 5. 3. 2. 4. 6. 7. 9 ]

↑  
 $p=5$

partition

[ 1. 3. 2. 4. 5 ]

↑  
 $p=3$ .