

-10 = pivot

1) (-10) 3 8 17 11 59 23 -4 0 79 67 12

Pivot = -10
 $i \rightarrow i$ is used to search for the elements which are greater than pivot

$j \rightarrow j$ is used to search for the elements which are smaller than pivot.

1) (-10) 3 8 17 11 59 23 -4 0 79 67 12
pivot $i \rightarrow$ $j \leftarrow$

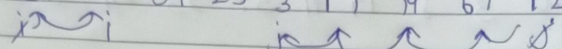
1) (-10) 3 8 17 11 59 23 -4 0 79 67 12
pivot $i \rightarrow$ $j \leftarrow$

1) (-10) 3 8 17 11 59 23 -4 0 79 67 12 ∞
pivot $i \rightarrow$ $j \leftarrow$
Swap $i = 3$ & $j = -4$
-4

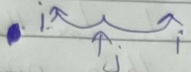
2) (-10) 8 17 11 59 23 -3 0 79 67 12 ∞
pivot $i \rightarrow$ $j \leftarrow$
pivot = -4 no swapping

3) (-10) 8 17 11 59 23 -3 0 79 67 12 ∞
pivot = 8

3) (-10) 8 17 11 59 23 -3 0 79 67 12 ∞
 $i \rightarrow$ $j \leftarrow$
Swap i & j

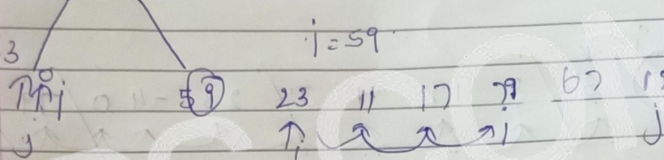
4/ 8 0 11 59 23 3 17 79 67 12


Swap i, j

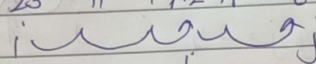
5/ 8 0 3 59 23 11 17 79 67 12


~~replace~~ replace i, j (\because i, j are crossed each other)

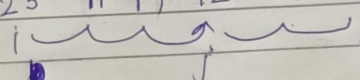
6/ 3 0 8 59 23 11 17 79 67 12

pivot = 3 $i = 59$


replace by 3
 swap i, j

7/ 59 23 11 17 12 67 79


swap i, j

8/ 59 23 11 17 12 67 79


9/ 12 23 11 17 59 67 79
