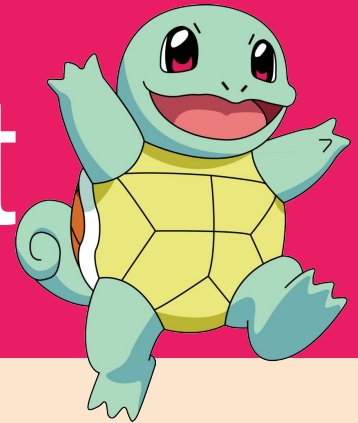




**FACULTAD
DE INGENIERIA**
Universidad de Buenos Aires

SORTS: Quick sort



Algoritmos y programación II (75.41 & 95.15)

Curso Mariano Méndez

1er cuatrimestre 2020
Valentina Laura Correa

2	124	23	5	89	-1	44	643	34
0	1	2	3	4	5	6	7	8

Pos.
pivot

Pivote

2	124	23	5	89	-1	44	643	34
0	1	2	3	4	5	6	7	8

Pos.
pivot

Pivote

2	124	23	5	89	-1	44	643	34
0	1	2	3	4	5	6	7	8



¿ 2 > 34 ?

Pos.
pivot

Pivote

2	124	23	5	89	-1	44	643	34
0	1	2	3	4	5	6	7	8

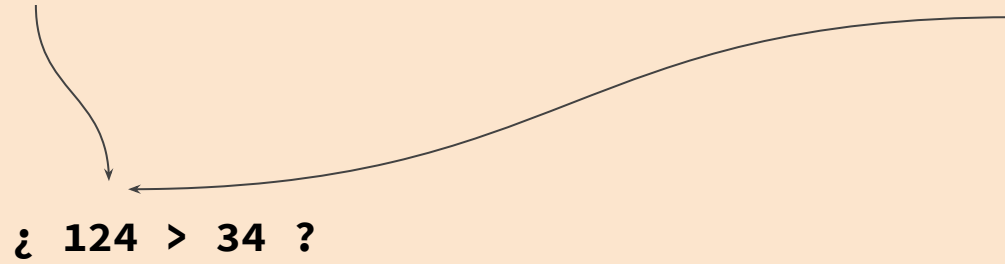


¿ 2 > 34 ? ❌

Pos.
pivot

Pivote

2	124	23	5	89	-1	44	643	34
0	1	2	3	4	5	6	7	8



Pos.
pivot

Pivote

2	124	23	5	89	-1	44	643	34
0	1	2	3	4	5	6	7	8

¿ 124 > 34 ? ✓

Pos.
pivot

Pivote

2	124	23	5	89	-1	44	643	34
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0

1

2

3

4

5

6

7

8



swap

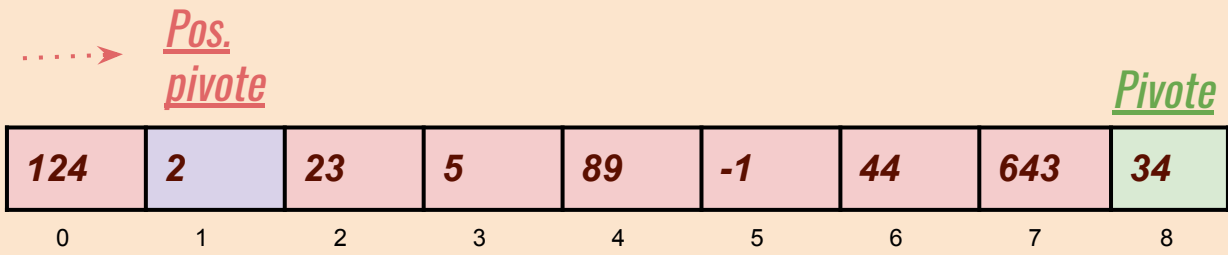
Pos.
pivot

Pivote

124	2	23	5	89	-1	44	643	34
0	1	2	3	4	5	6	7	8



swap



Pos.
pivote

Pivote

124	2	23	5	89	-1	44	643	34
0	1	2	3	4	5	6	7	8

¿ 23 > 34 ?

Pos.
pivot

Pivote

124	2	23	5	89	-1	44	643	34
0	1	2	3	4	5	6	7	8

¿ 23 > 34 ? ❌

Pos.
pivote

Pivote

124	2	23	5	89	-1	44	643	34
0	1	2	3	4	5	6	7	8

¿ 5 > 34 ?

Pos.
pivote

Pivote

124	2	23	5	89	-1	44	643	34
0	1	2	3	4	5	6	7	8

¿ 5 > 34 ? ❌

Pos.
pivote

Pivote

124	2	23	5	89	-1	44	643	34
0	1	2	3	4	5	6	7	8

¿ 89 > 34 ?

Pos.
pivote

Pivote

124	2	23	5	89	-1	44	643	34
0	1	2	3	4	5	6	7	8

¿ 89 > 34 ? ✓

Pos.
pivote

Pivote

124	2	23	5	89	-1	44	643	34
-----	---	----	---	----	----	----	-----	----

0

1

2

3

4

5

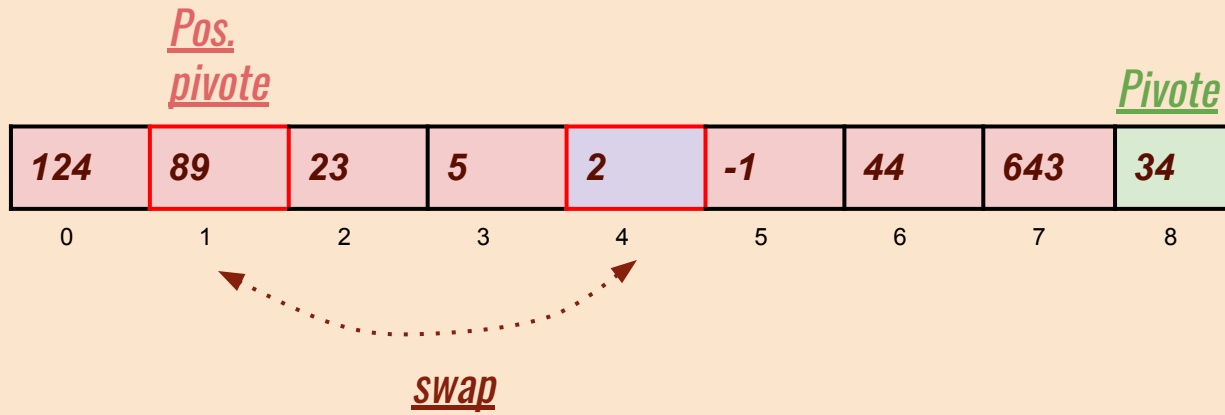
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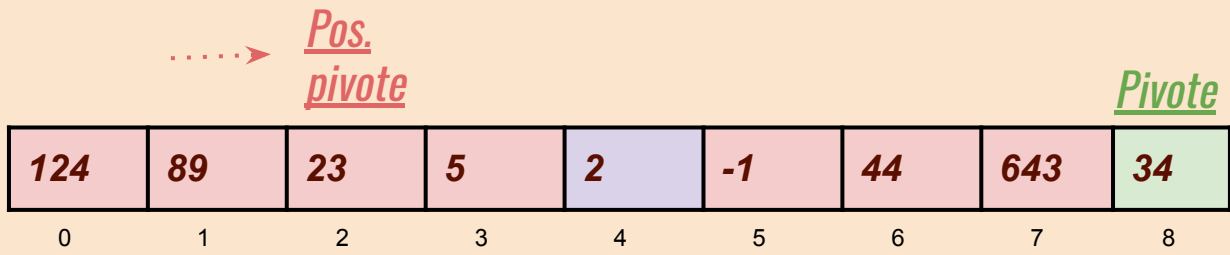
7

8



swap





Pos.
pivot

Pivote

124	89	23	5	2	-1	44	643	34
0	1	2	3	4	5	6	7	8

¿ -1 > 34 ?

Pos.
pivot

Pivote

124	89	23	5	2	-1	44	643	34
0	1	2	3	4	5	6	7	8

¿ -1 > 34 ? ❌

Pos.
pivote

Pivote

124	89	23	5	2	-1	44	643	34
0	1	2	3	4	5	6	7	8

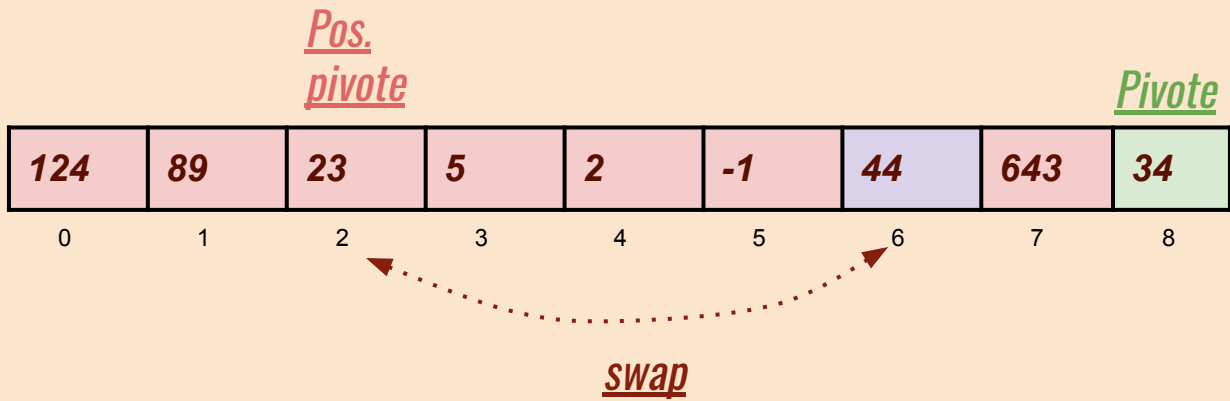
¿ 44 > 34 ?

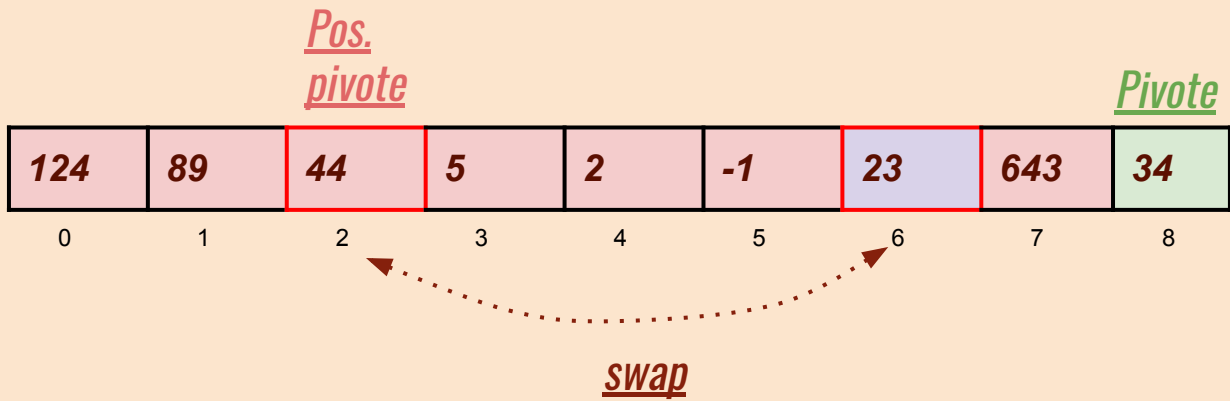
Pos.
pivote

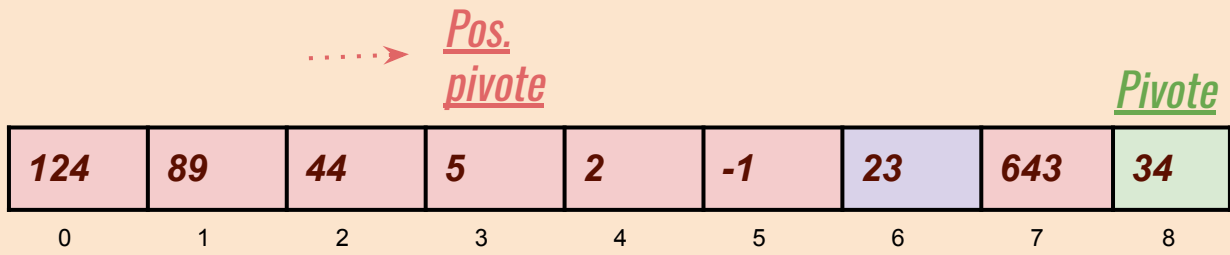
Pivote

124	89	23	5	2	-1	44	643	34
0	1	2	3	4	5	6	7	8

¿ 44 > 34 ? ✓







Pos.
pivot

Pivot

124	89	44	5	2	-1	23	643	34
0	1	2	3	4	5	6	7	8

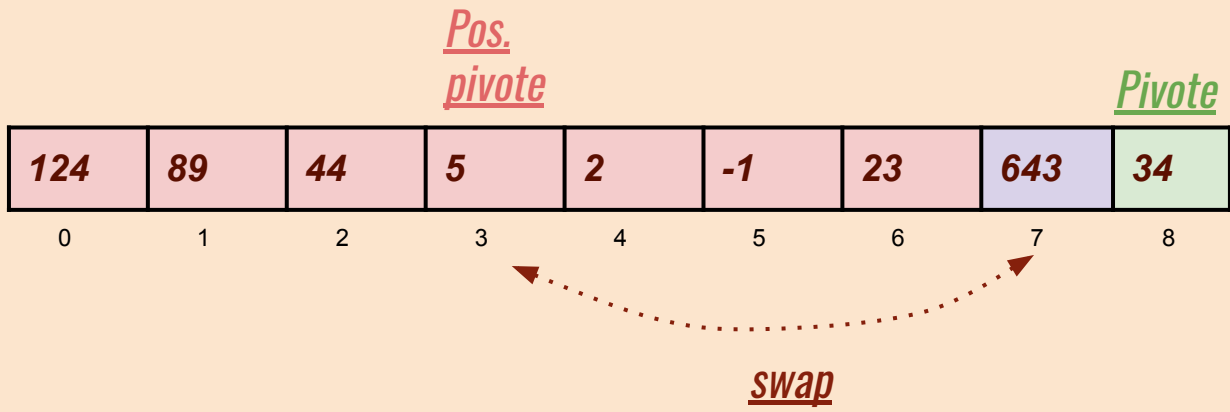
¿ 643 > 34 ?

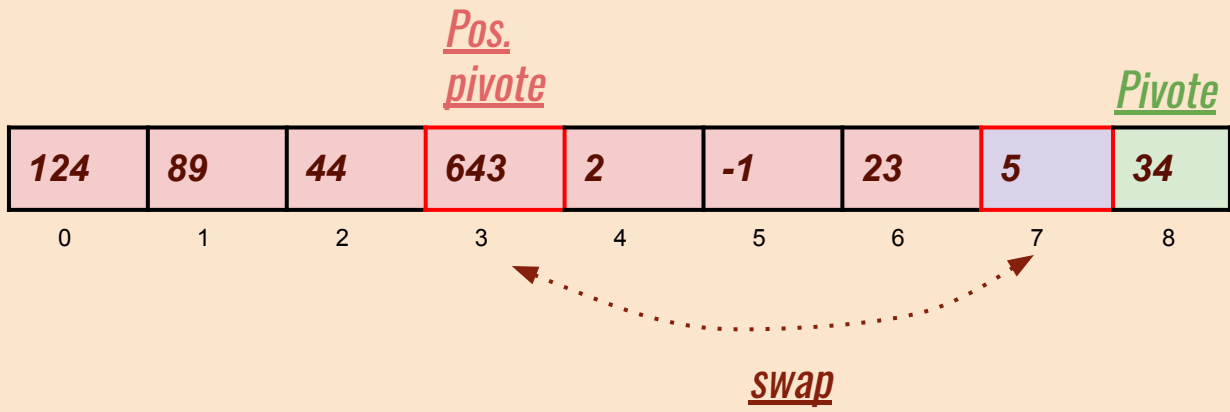
Pos.
pivot

Pivot

124	89	44	5	2	-1	23	643	34
0	1	2	3	4	5	6	7	8

¿ 643 > 34 ? ✓





.....➤ Pos.
pivot

Pivote

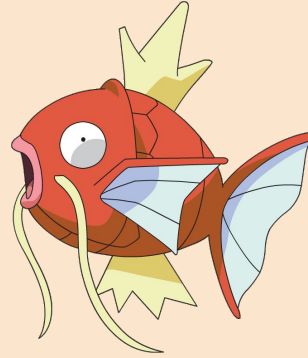
124	89	44	643	2	-1	23	5	34
0	1	2	3	4	5	6	7	8

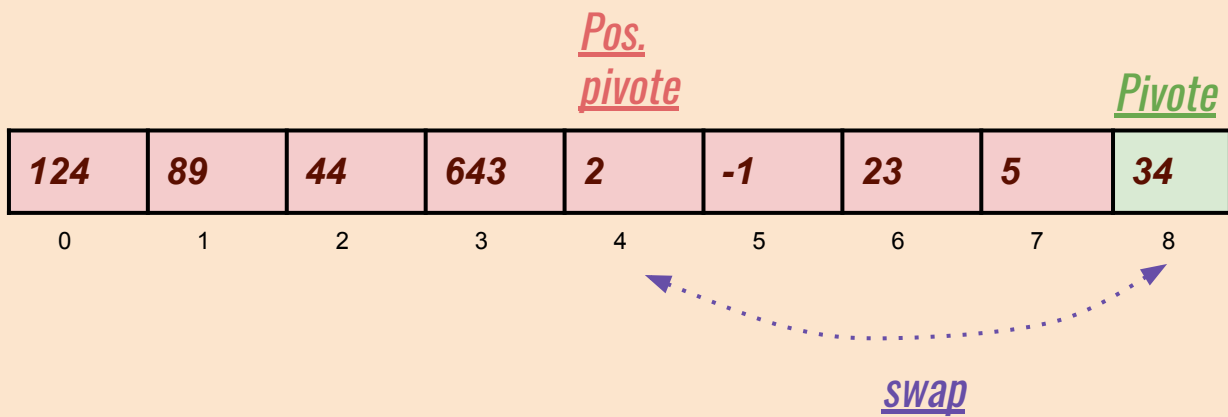
Pos.
pivote

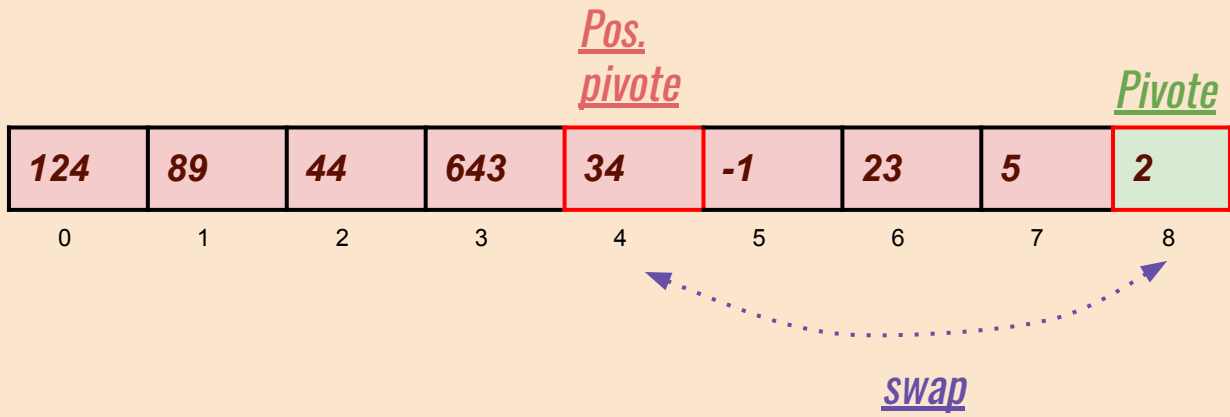
Pivote

124	89	44	643	2	-1	23	5	34
0	1	2	3	4	5	6	7	8

Recorrimos todo







Pos.
pivote

124	89	44	643	34	-1	23	5	2
0	1	2	3	4	5	6	7	8



números > 34



números < 34

124	89	44	643	34	-1	23	5	2
0	1	2	3	4	5	6	7	8

Pos.
pivote



Pivote

124	89	44	643
0	1	2	3

mismo procedimiento

124	89	44	643	34	-1	23	5	2
0	1	2	3	4	5	6	7	8



Pos.
pivote

Pivote

124	89	44	643
0	1	2	3



¿ 124 > 643 ?

124	89	44	643	34	-1	23	5	2
0	1	2	3	4	5	6	7	8



Pos.
pivote

Pivote

124	89	44	643
0	1	2	3



¿ 124 > 643 ? ❌

124	89	44	643	34	-1	23	5	2
0	1	2	3	4	5	6	7	8



Pos.
pivote

Pivote

124	89	44	643
0	1	2	3

¿ 89 > 643 ?

124	89	44	643	34	-1	23	5	2
0	1	2	3	4	5	6	7	8



Pos.
pivote

Pivote

124	89	44	643
0	1	2	3

¿ 89 > 643 ? ❌

124	89	44	643	34	-1	23	5	2
0	1	2	3	4	5	6	7	8



Pos.
pivote

Pivote

124	89	44	643
0	1	2	3



¿ 44 > 643 ?

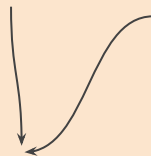
124	89	44	643	34	-1	23	5	2
0	1	2	3	4	5	6	7	8



Pos.
pivote

Pivote

124	89	44	643
0	1	2	3



¿ 44 > 643 ? ❌

124	89	44	643	34	-1	23	5	2
0	1	2	3	4	5	6	7	8



Pos.
pivote

Pivote

124	89	44	643
0	1	2	3

Terminamos de recorrer

124	89	44	643	34	-1	23	5	2
0	1	2	3	4	5	6	7	8



Pos.
pivote

Pivote

124	89	44	643
0	1	2	3



swap

124	89	44	643	34	-1	23	5	2
0	1	2	3	4	5	6	7	8



Pos.
pivote

Pivote

643	89	44	124
0	1	2	3



swap

124	89	44	643	34	-1	23	5	2
0	1	2	3	4	5	6	7	8

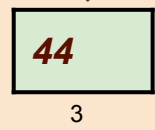
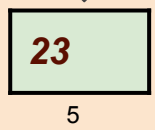
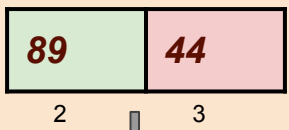
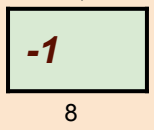
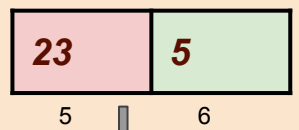
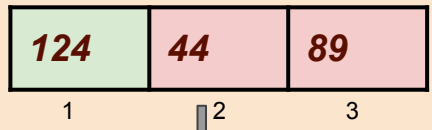
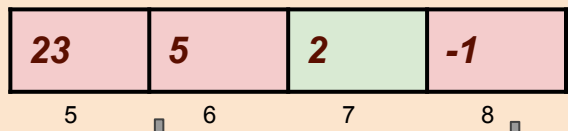
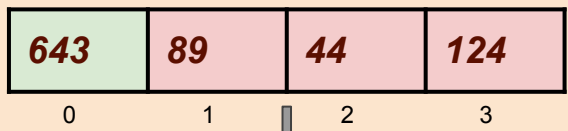
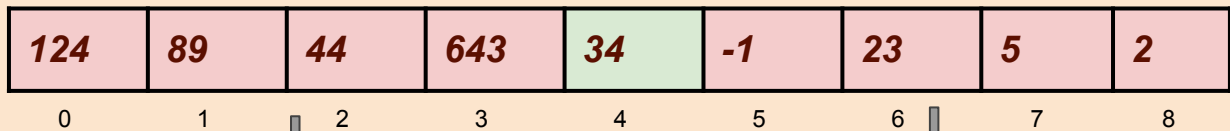
Pos.
pivote

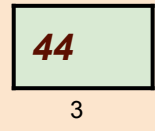
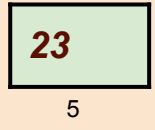
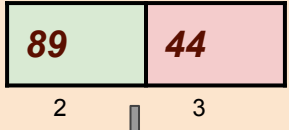
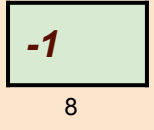
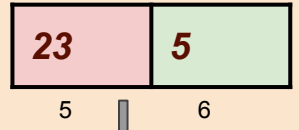
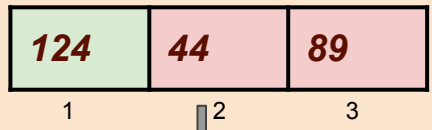
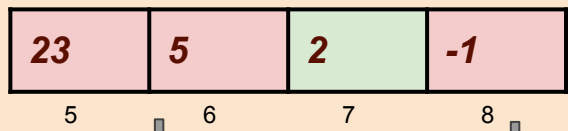
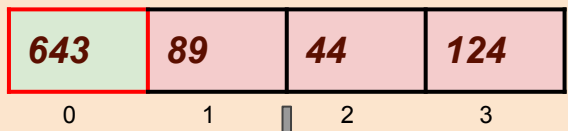
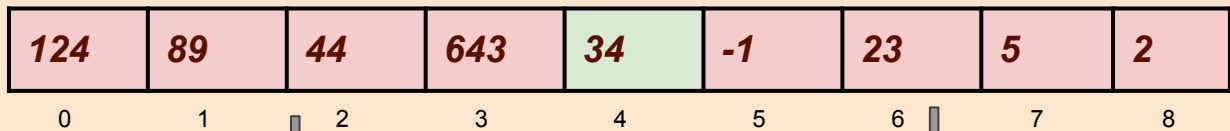


643	89	44	124
0	1	2	3

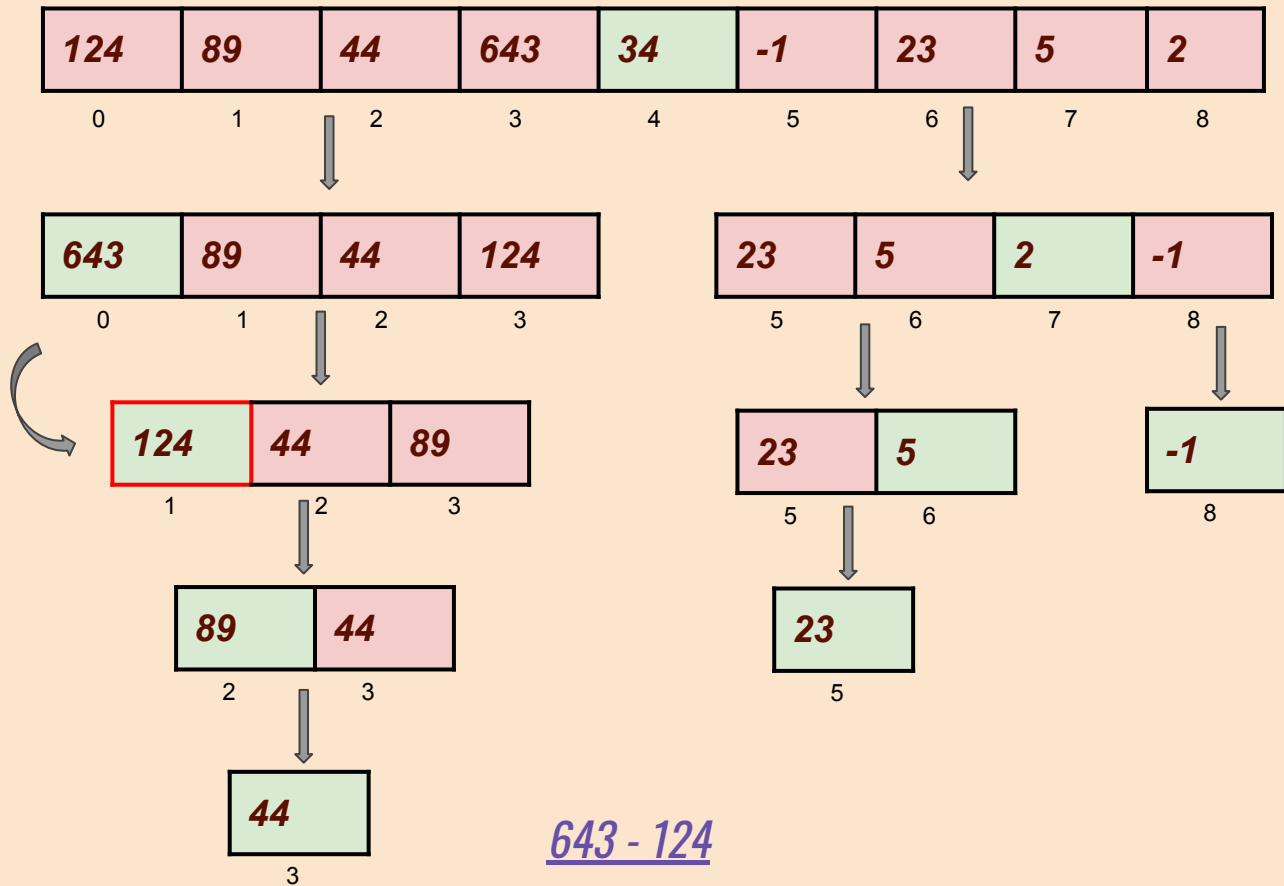
números > 643

números < 643

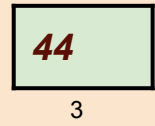
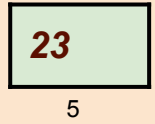
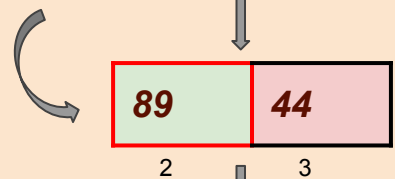
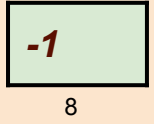
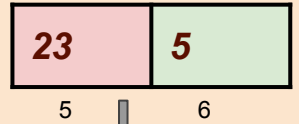
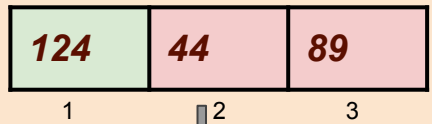
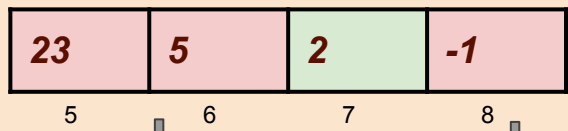
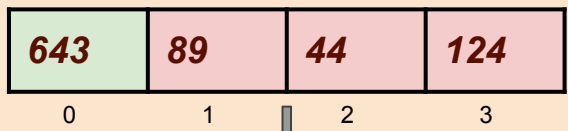
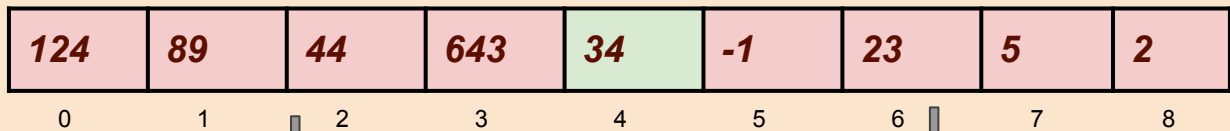




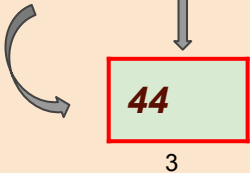
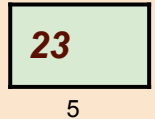
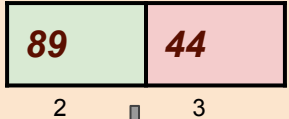
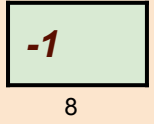
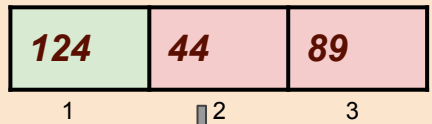
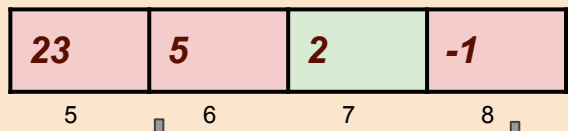
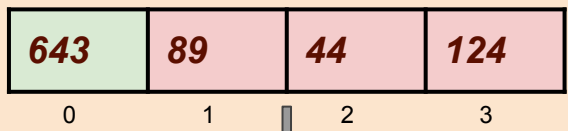
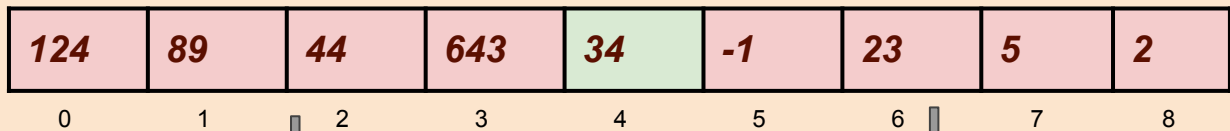
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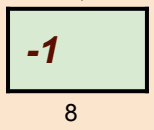
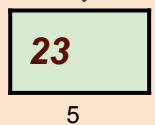
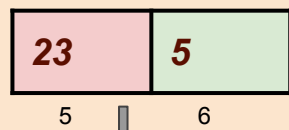
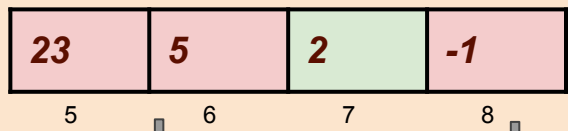
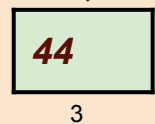
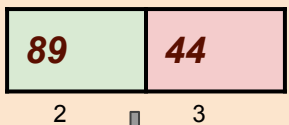
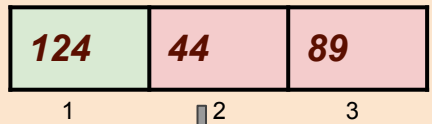
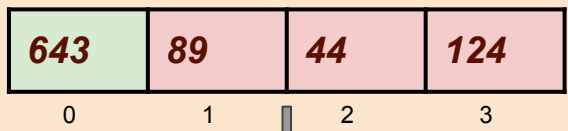
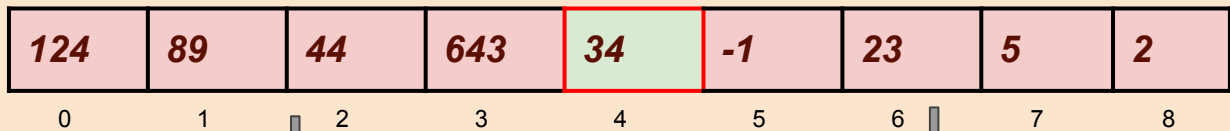
643 - 124



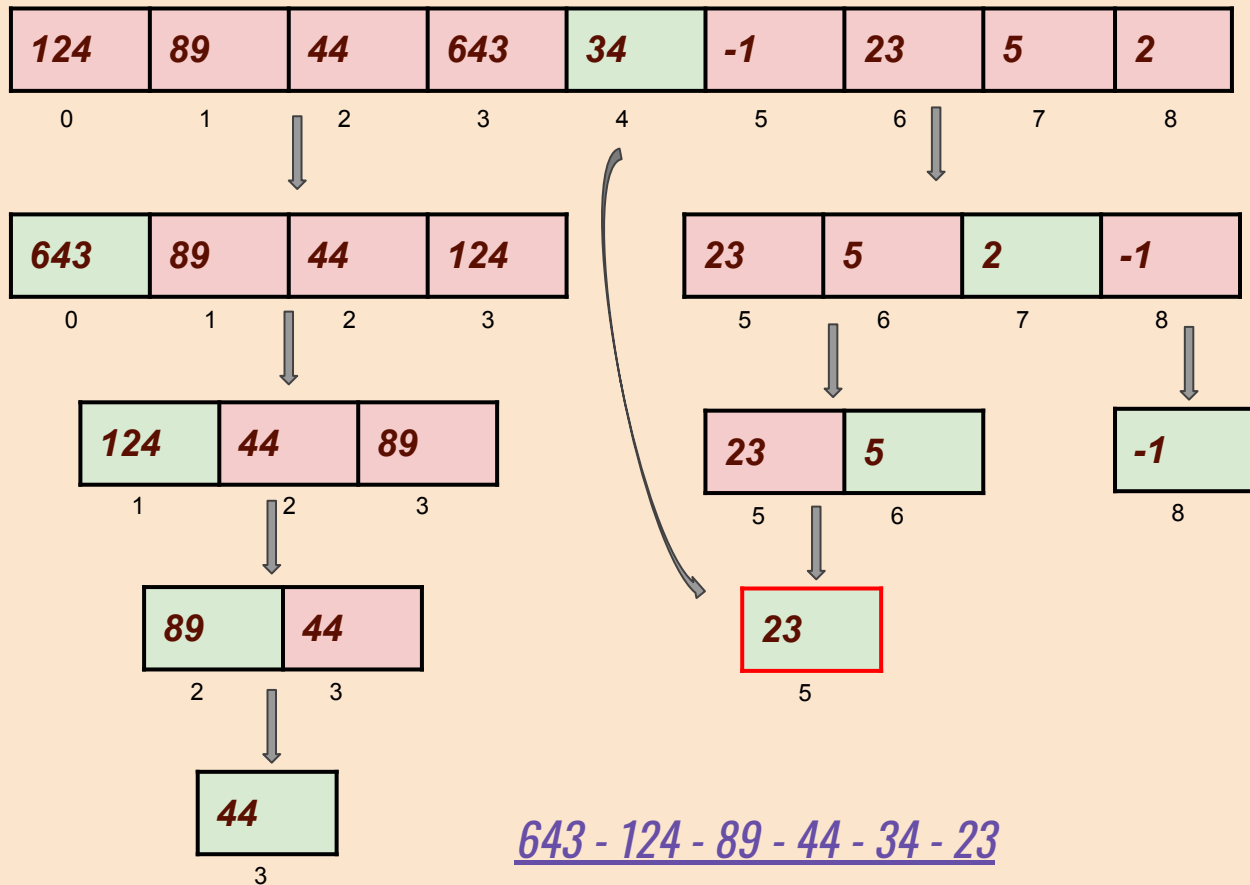
643 - 124 - 89

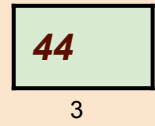
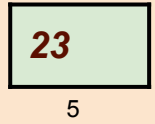
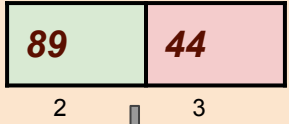
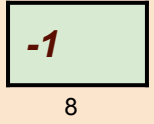
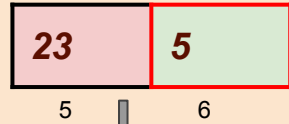
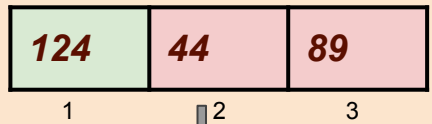
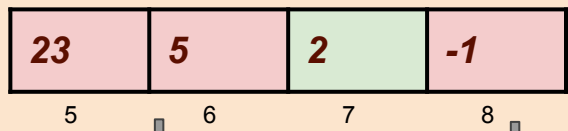
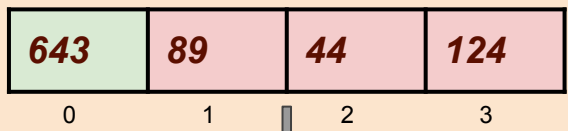
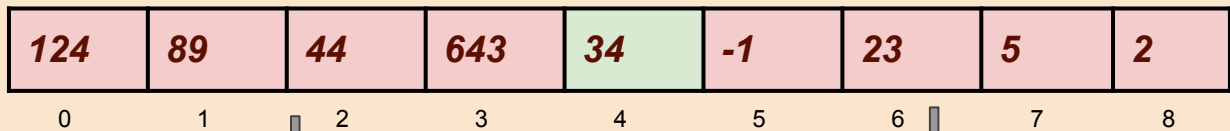


643 - 124 - 89 - 44

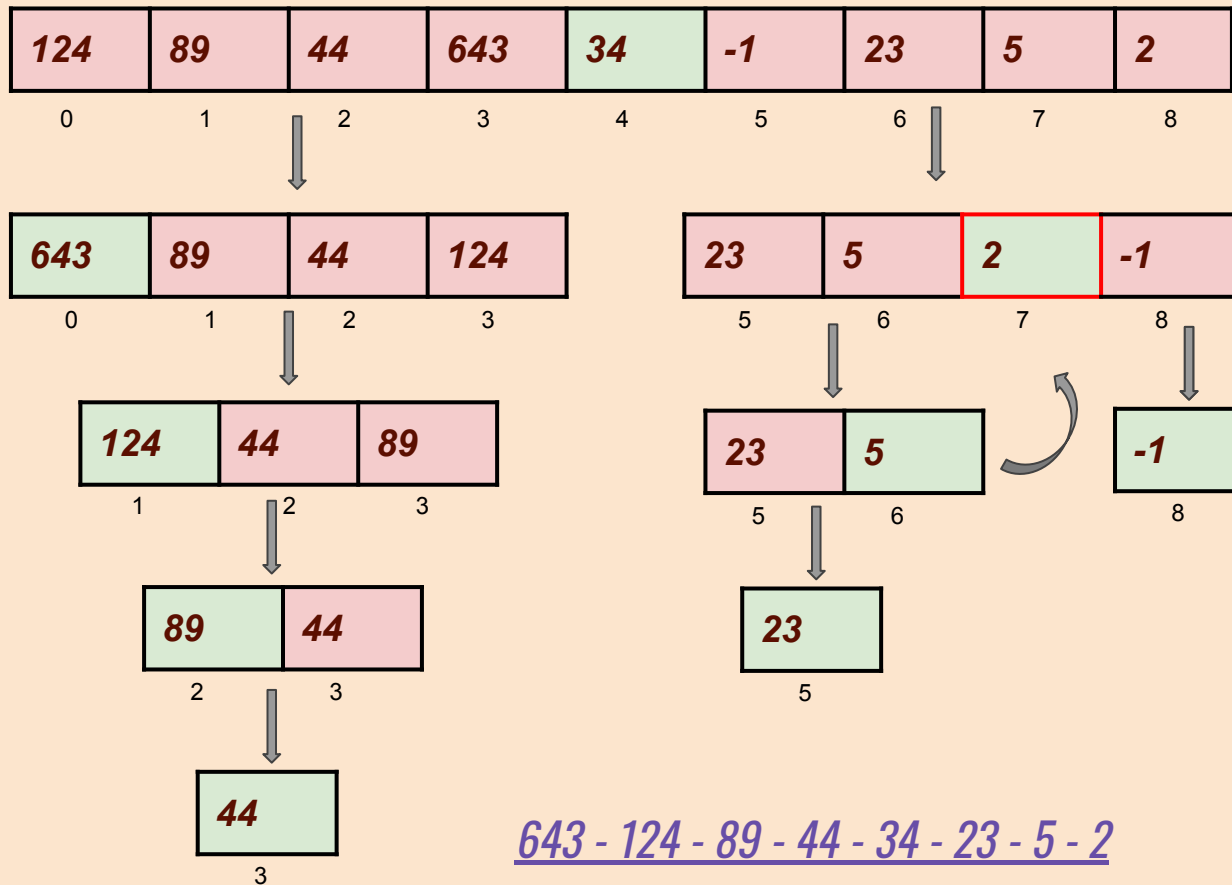


643 - 124 - 89 - 44 - 34

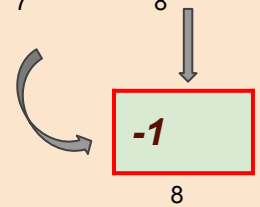
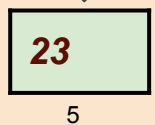
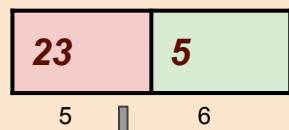
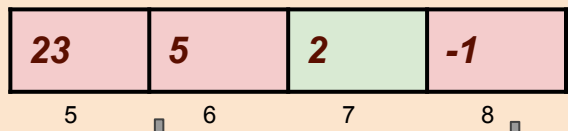
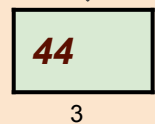
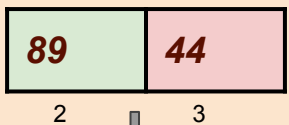
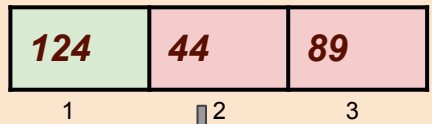
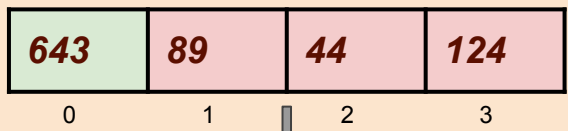
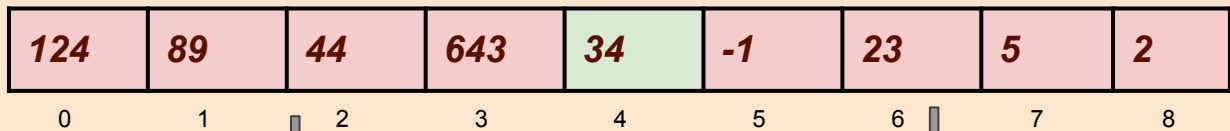




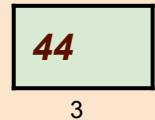
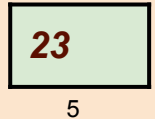
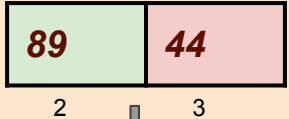
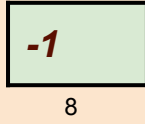
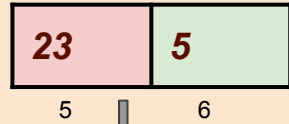
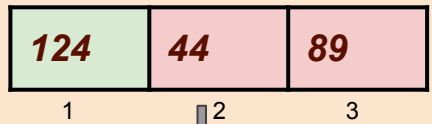
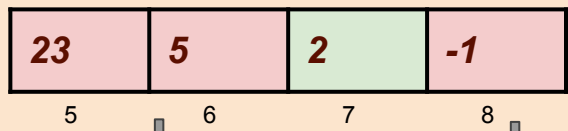
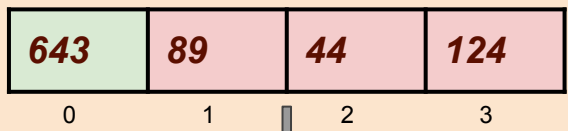
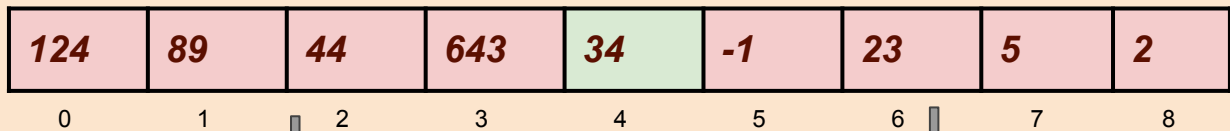
643 - 124 - 89 - 44 - 34 - 23 - 5



643 - 124 - 89 - 44 - 34 - 23 - 5 - 2



643 - 124 - 89 - 44 - 34 - 23 - 5 - 2 - -1



643 - 124 - 89 - 44 - 34 - 23 - 5 - 2 - -1



Preguntas?

FIN