

# quicksort Sort

Pivot = array[0]

2	8	3	1	5
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Make a sub-array with items from array[1] to end that are less than or equal to pivot and another with items greater than pivot

1	2	8	3	5
---	---	---	---	---

The pivot is now in its sorted position  
Recursively perform Quicksort on both subarrays

2
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Lesser array reaches the base case as it has < 2 items. It is sorted  
  
8 is the pivot in the greater array and a subarray of lesser items is created.  
  
There are no greater items than the pivot

1	8	3	5
---	---	---	---

1
---

3	5	8
---	---	---

The pivot 8 is in its final sorted position  
  
3 is the pivot in the last array

8
---

3	5
---	---

A single array greater than the pivot is created  
  
It contains one item, 5

3	5
---	---

3
---

Pivot 3 is in its final sorted position  
  
The final array reaches the base case as it has less than two items  
  
5 is in its final position.

5
---

5
---

The recursive calls are finished as the base case has been reached  
  
The sorted array is returned

1	2	3	5	8
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