Quick Sort Algorithm

* *If N>2*
* *Initialize indices pos1 = 0, pos2 = N-1*
* *Set pivot value = map[0]*
* *Loop while pos1 < pos2*

*Loop while map[pos1] < pivot value and pos1 < pos2*

* *Increment pos1*

*Loop while map[pos2] ≥ pivot value and pos2 > pos1*

* *Decrement pos2*

*If pos1 < pos2*

* *Swap map[pos1] and map[pos2]*
* *If pos1=0, increment pos1*
* *If pos2=N-1, decrement pos2*
* *Call Quick Sort and pass first half of map with a length of pos1*
* *Call Quick Sort and pass second half of map, with a length N-pos1*
* *Otherwise if N=2 and map[0] > map[1]*
* *Swap map[0] and map[1]*