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1. Pseudocode and Big O notation analysis for loop method:

Input: array of integers
Output: int index

Sub minFinder(array)
        index = 0 --> (1)
        For i = 0 to length of array  --> (n+1)
                If array at i < array at index Then --> (n)
                        index = i --> (n-1)
                End If
        End

        return index --> (1)
End Sub

T(n) = 1 + n + 1 + n + n - 1 + 1  = 3n + 2 = O(n);



2. Pseudocode and Big O notation analysis for recursive method

Input: array of integers, int minimumIndex, int index
Output: int minimumIndex

Sub minFinder_recursive(array, minimumIndex, index)

        If array at index < array at minimumIndex Then --> (n)
                minimumIndex = index    --> (n-1)
        End If

        If index = length of array - 1 --> (n)
                return minimumIndex     --> (1)

        Else
                return minFinder_recursive(array, minimumIndex, index+1) -->
(n-1)
        End If
End Sub

T(n) = n + n-1 + n + 1 + n-1 = 4n-1  = O(n);
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