

PUSH: The push function shifts every element in the array one index to the right and adds the parameter value to the 0th index. No matter the array, shifting is required whenever pushing an element. The total operations required are then similar to the length of the array. For instance, there would be $n-1$ shifts every time this method is called. Therefore, the running time of this implementation of push is linear or $O(N)$

POP: The pop function is similar to push in that the values in the array need to be shifted. In this case the elements are shifted one index to the left, as the value in the 0th index is popped. The total count for shifts is the length of the array. So the running time of this pop is linear. - $O(N)$

PEEK: The peek function has constant running time as the number of operations do not grow with input. For instance there are only two operations every time so the running time is constant. - $O(1)$

ISEMPTY: The isEmpty function is also constant because its number of operations do not grow with input and always remains one. Therefore, the running time is constant. - $O(1)$