

Question 2 - Time Efficiency Analysis

Pushing n elements to stack: $O(1)$

Since the function is constant time, it does not matter how many elements are placed into the stack. That is why it is $O(1)$ and not something like $O(n)$.

Pop n elements from stack: $O(n)$

Popping is $O(n)$ because there is also a while loop inside the function. While loops depend on how many are already in the stack, so it is $O(n)$.