Amortization:
Implementing a Queue With Two Stacks

A queue is implemented using two stacks, called Front and Back. What is the amortized time per operation for a sequence of n operations?

```
Enqueue ( a ):
    Push (a, Back)
endEnqueue
```

```
Dequeue ( ):
    If Front is empty then
        While Back is non-empty do
            Push ( Pop ( Back ), Front )
        endwhile
    endif
    return ( Pop ( Front ) )
endDequeue
```