

Exercise 5: Stack data structure with array

a. Pseudo-code:

```
stack[] #stack is array
top = 0 #store index of top

function empty() :
    return (top == 0)
function size() :
    return top
function push(x) :
    que[top++] = x
function pop() :
    top = top - 1
function front() :
    return stack[top - 1]
```

b. Complexity: $O(1)$ each operator