

## Stacks and Queues

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1. Write a function `removeUntil()` that removes all values from a stack of integers until but not including the first occurrence of a given value. The function accepts two parameters: a reference to the stack and the value to stop at. The function definition is as follows:

```
def removeUntil(stack, value):
```

Given a stack [1 2 3 4 5 6 5 4 3 2 1] with the topmost number displayed on the left, calling `removeUntil()` with `value = 5` will produce the stack [5 6 5 4 3 2 1].

2. Write a recursive function `recursiveReverse()` that reverses the order of items stored in a queue of integers. The function accepts a single parameter: a reference to the queue. The function definition is as follows:

```
def recursiveReverse(queue):
```

3. Write a function `palindrome()` that determines whether a given string is a palindrome. The function accepts a single parameter: the word (a string). The function should return `True` if the string is a palindrome and `False` otherwise. The function should ignore whitespace, case, and punctuation. The function definition is as follows:

```
def palindrome(word):
```

*Sample output:*

```
Enter a string: A man a plan a canal Panama The
string is a palindrome.
```

```
Enter a string: Superman in the sky The
string is not a palindrome.
```

4. Write a function `balanced()` that determines if an expression comprised of the characters `()[]{}` is balanced. The function accepts a single parameter: the expression (a string). The function should return `True` if the expression is balanced and `False` otherwise. The function definition is as follows:

```
def balanced(expression):
```

The following expressions are balanced because the order and quantity of the parentheses match:

```
()
([])
{[]() []}
```

The following expressions are not balanced:

```
{()}
[( {} )]
```