Solution Review: Relational and Logical Operators

In this review, we give a detailed analysis of the solution to this problem.

We'll cover the following

Solution #1: Performing each Test Separately

```
testVariable <- 19
test1 <- testVariable > 4
test2 <- testVariable < 10

result <- test1 && test2
cat(result)
```

Explanation

Our task was to check whether the `testVariable` lies between 4 and 10. For that, we first check whether the number is **greater** than 4 and store the result in a variable `test1`. Then we check whether the number is **less** than 10 and store the result in variable `test2`. Later, we take the `&&` of the two variables so that we can check whether both the tests pass or not and print the result.

Solution #2: Using One Boolean Expression

```
testVariable <- 19
cat(testVariable > 4 && testVariable < 10)
```

Explanation

The above method is simpler. Just use relational and logical operators to make a boolean equation and print the result. R compiler is smart enough to compute the value of `testVariable > 4` first then compute the value of `testVariable < 10` and later **AND** their results. This is because the **relational operators** have higher precedence than **logical operators**. So, they are executed first and then the logical operators are applied.

Let’s take a small quiz on Operators and Notations in R to test your concepts.