

Solution Review: Arithmetic Operators

In this review: we give a detailed analysis of the solution to this exercise.

We'll cover the following

- Solution #1: Operator Precedence
 - Explanation
- Solution #2: Using the Entire Expression Directly
 - Explanation

Solution #1: Operator Precedence

```
ans <- 4 * 9
ans <- ans + 2
ans <- ans - 8
cat(ans)
```



Explanation

The given task here was to find the value of the equation

```
2 + 4 * 9 - 8
```

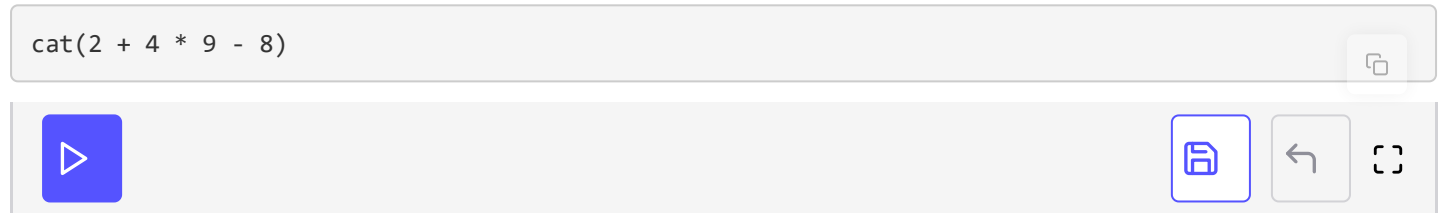
Mathematically, we need to find the value of the multiplying numbers first, keeping in mind **operator precedence**. So, we multiply 4 and 9 and save the value in the variable `ans`. Next, we perform addition. We can either perform subtraction or addition first, but we move from left to right: add 2 to `ans` and store in `ans`, then, subtract 8 from `ans`.

Operator precedence determines which operator is performed first in an expression with more than one operators.

- `*`, `/` and `%` operators have equal precedence.
- `+` and `-` operators have equal precedence.
- `*`, `/` and `%` have higher precedence than `+` and `-`. The operator with higher precedence is executed first in the expression.

Solution #2: Using the Entire Expression Directly

```
cat(2 + 4 * 9 - 8)
```

The image shows a snippet of an R console interface. At the top, a text input field contains the R code `cat(2 + 4 * 9 - 8)`. To the right of the input field is a small copy icon. Below the input field is a toolbar with three buttons: a blue square button with a white play icon (run), a blue square button with a white save icon, and a grey square button with a white left arrow icon. To the right of the left arrow button is a small square icon with two arrows pointing outwards (full screen).

Explanation

This is the simpler method, just find the value of the entire string and pass to `cat()` for printing. Here, **operator precedence** will be handled by R compiler itself.

Now, that we have an idea of **Arithmetic Operators** let's move on to **Relational Operators**.