












## A. Arithmetic Operation (let num1 = 24, num2 = 30)

Environment	History	Connections	Tutorial	
   Import Dataset ▾	 134 MiB ▾			
R ▾	 Global Environment ▾			
values				
num1	24			
num2	30			






```
Console Terminal × Background Jobs ×
R ▾ R 4.4.1 · ~/ ↗
> num1 <- 24
> num2 <- 30
> cat("A. ARITHMETIC OPERATIONS:")
A. ARITHMETIC OPERATIONS:
> cat("Addition: ", num1 + num2)
Addition: 54
> cat("Subtraction: ", num1 - num2)
Subtraction: -6
> cat("Multiplication: ", num1 * num2)
Multiplication: 720
> cat("Division: ", num1 / num2)
Division: 0.8
> cat("Modulus: ", num1 %% num2)
Modulus: 24
> cat("Integer Division: ", num1 %/% num2)
Integer Division: 0
> cat("Exponent: ", num1^2)
Exponent: 576
> |
```

## B. Relational Operation (let num1 = 56, num2 = 45)

Environment	History	Connections	Tutorial
  Import Dataset ▾	 134 MiB ▾		
R ▾	 Global Environment ▾		
Values			
num1	56		
num2	45		

```
Console Terminal × Background Jobs ×
R ▾ R 4.4.1 . ~/ ↗
> num1 <- 56
> num2 <- 45
> cat("Relational operations:")
Relational operations:
> cat("Less than: ", num1 < num2)
Less than: FALSE
> cat("Less than or equal to: ", num1 <= num2)
Less than or equal to: FALSE
> cat("Greater than: ", num1 > num2)
Greater than: TRUE
> cat("Greater than or equal to: ", num1 >= num2)
Greater than or equal to: TRUE
> cat("Equal to: ", num1 == num2)
Equal to: FALSE
> cat("Not Equal to: ", num1 != num2)
Not Equal to: TRUE
>
```






## C. Logical Operation

Environment	History	Connections	Tutorial
  Import Dataset ▾  145 MiB ▾ 			
R ▾  Global Environment ▾			
values			
arr1	logi [1:4] TRUE FALSE TRUE FALSE		
arr2	logi [1:4] FALSE TRUE FALSE FALSE		
logical_val	TRUE		
num1	56		
num2	45		

```
Source

Console Terminal × Background Jobs ×
R ▾ R 4.4.1 · ~/ ↻
> logical_val <- TRUE
> cat("Logical True: ", logical_val)
Logical True: TRUE
> cat("Logical Not: ", !logical_val)
Logical Not: FALSE
> arr1 <- c(True, False, True, False)
Error: object 'True' not found
> arr1 <- c(TRUE, FALSE, TRUE, FALSE)
> arr2 <- c(FALSE, TRUE, FALSE, FALSE)
>
> cat("Element-wise Logical AND: ", arr1 & arr2)
Element-wise Logical AND: FALSE FALSE FALSE FALSE
> cat("Logical AND (Single values): ", TRUE && FALSE, "\n")
Logical AND (Single values): FALSE
> cat("Element-wise Logical OR: ", arr1 | arr2)
Element-wise Logical OR: TRUE TRUE TRUE FALSE
> cat("Logical OR: ", TRUE || FALSE)
Logical OR: TRUE
> |
```

D. Combination (let num1 = 76, num2 = 56, num3 = 74, num4 = 43, num5 = False, num6 = True, num7 = True)

Environment	History	Connections	Tutorial
  Import Dataset ▾  148 MiB ▾ 			
R ▾  Global Environment ▾			
values			
comb1	TRUE		
comb2	TRUE		
comb3	TRUE		
num1	76		
num2	56		
num3	74		
num4	43		
num5	FALSE		
num6	TRUE		
num7	TRUE		

```
Console Terminal x Background Jobs x
R ▾ R 4.4.1 · ~/ ↗
> num1 <- 76
> num2 <- 56
> num3 <- 74
> num4 <- 43
> num5 <- FALSE
> num6 <- TRUE
> num7 <- TRUE
> comb1 <- (num1 > num2) || (!num6) || (!num5) || (num2 != num3)
> cat("Combination 1 result: ", comb1)
Combination 1 result: TRUE
> comb2 <- (num1 > num4) || (!num7) || (!num4) || (num2 <= num3)
> cat("Combination 2 result: ", comb2)
Combination 2 result: TRUE
> comb3 <- (num5 > num4) || (!num1) || (!num6) || (num1 >= num5)
> cat("Combination 3 result: ", comb3)
Combination 3 result: TRUE
> |
```