

2. Relational Operators

>> These will check the relation between operands & it will return a result as either 'True' or 'False'.

eg: ==, >, <, >=, <=, !=

TRUE -> 1 (o/p)

FALSE -> 0 (o/p)

Types:

1. equals to: '==' OR '-eq'
2. not equals to: '!=' OR '-ne'
3. greater than: '>' OR '-gt'
4. less than: '<' OR '-lt'
5. greater than equal to: '>=' OR '-ge'
6. less than equal to: '<=' OR '-le'

-> Symbols: operation (+, -, *, /, %)

-> Alphabetical Representation: loops & conditional statements

SCRIPT: COMPARE 2 NUMBERS & CHECK THE RELATION B/W THEM USING ALL RELATIONAL OPERATORS

```
a=10
b=5
$(a == b)
```

3. Logical Operators

>> These operators will check the condition & compare the inputs/values & it will do logical operation on it. Then, it returns the o/p as 'True' / 'False'.

Types :

1. Logical AND
2. Logical OR
3. Logical NOT

-> Input here can be either 'True' OR 'False'.

-> Possible combination:

T	T
T	F
F	T
F	F

-> False value: 0
-> True value: Anything other than 0

-> False value for a string: Empty/null string
-> True value: anything inside a string

1. Logical AND -> &&

Input		Output
a	b	
1	1	1
1	0	0
0	1	0
0	0	0

AND -> if given both/all the conditions are 'TRUE', then only the o/p will be 'TRUE'.

-> If even is conditions is 'FALSE', the o/p will be 'FALSE'.

2. Logical OR -> ||

Input		Output
a	b	
1	1	1
1	0	1
0	1	1
0	0	0

OR -> if given any one is condition is 'TRUE', the o/p will be 'TRUE'.

-> If both conditions are 'FALSE', the only the o/p will be 'FALSE'.

3. Logical NOT -> !

NOT -> It will inverse the given condition/input & give the o/p.

Input	Output
0	1
1	0

```
input(a):1
echo $(!a)
```

SCRIPT: WRITE A SCRIPT TO PERFORM ALL LOGICAL OPERATIONS

```
echo "Enter number: "
read num

↓

read -p "Enter number: " num

↓

prompt
```

Prompt
user input & variable

user input prompt variable