

## Expression

A fragment of code that produces a value is called an expression. Every value written is an expression, for example : 77,89,1000 or "Hello".

## Operators in JavaScript

**Arithmetic operators** : + , - , \* , \*\* (exponentiation) , / , % , ++ , --

**Assignment operator** : = , += , -= , \*= (  $x = x * y$  ) , /= (  $x = x / y$  ) , %= (  $x = x \% y$  ) , \*\*= (  $x = x ** y$  ).

**Comparison operators** : ==(equal to) , !=(not equal) , ===(equal value and type) , !==(not equal

value and type) , >(greater than) , <(less than) , >=(greater than equal) , <=(less than equal) , ?(ternary).

**Logical operator** : &&(logical and) , ||(logical or) , !(logical not).

The screenshot shows a web browser window with a JavaScript REPL. The code in the index.js file is as follows:

```

1 // operators in JavaScript
2 // every datatype literal is valid in JavaScript for ex : 78; , "harry" , True , false , etc.
3
4 // arithmetic operators
5 console.log("Arithmetic operators\n")
6 let a = 7 ;
7 let b = 3;
8 console.log("a+b = " , a+b)
9 console.log("a-b = " , a-b)
10 console.log("a/b = " , a/b)
11 console.log("a*b = " , a*b)
12 console.log("a**b = " , a**b)
13 console.log("a++ = " , a++)
14 console.log("a-- = " , a--)
15 console.log("a**b = " , a**b)
16 console.log("\n\n")
17
18 //Assignment operators
19 console.log("Assignment operators\n")
20 let c = 10;
21 let d = 2;
22 console.log("c+=5", c+=5)
23 console.log("c-=5", c-=5)
24 console.log("c*=5", c*=5)
25 console.log("c/=5", c/=5)
26 console.log("c%=5", c%=5)
27 console.log("d**=5", d**=5)
28 console.log("\n\n")
29
30 // comparison operator
31 console.log("comparison operator\n")
32 let e = 8;
33 let f = 9;
34 console.log("e==f is : " , e==f)
35 console.log("e!=f is : " , e!=f)
36 console.log("e===f is : " , e===f)
37 console.log("e!==f is : " , e!==f)
38 console.log("e>f is : " , e>f)

```

The console output shows the results of these operations:

```

Arithmetic operators
a+b = 10
a-b = 4
a/b = 2.3333333333333335
a*b = 21
a**b = 343
a++ = 7
a-- = 8
a**b = 343

Assignment operators
c+=5 15
c-=5 10
c*=5 50
c/=5 10
c%=5 0
d**=5 32

comparison operator
e==f is : false
e!=f is : true
e===f is : false
e!==f is : true
e>f is : false
e<f is : true
e>f? e:f is : 9

logical operator
g<h && g=4 is true
g<h && g=4 is false
g<h || g=4 is true
false
true
Hint: hit control+c anytime to enter REPL.

```

replit.com/@deepak0070/003operatorinJavaScript#index.js

003\_operator\_in\_JavaScript  
deepak0070

Run

index.js

```
30 // comparison operator
31 console.log("comparison operator\n")
32 let e = 8;
33 let f = 9;
34 console.log("e==f is : ", e==f)
35 console.log("e!=f is : ", e!=f)
36 console.log("e===f is : ", e===f)
37 console.log("e!==f is : ", e!==f)
38 console.log("e>f is : ", e>f)
39 console.log("e<f is : ", e<f)
40 console.log("e<=f is : ", e<=f)
41 console.log("e>=f is : ", e>=f)
42 console.log("e>f? e:f is : ", e>f? e:f)
43 console.log("\n\n")
44
45 // logical operator
46 console.log("logical operator\n")
47 let g = 4;
48 let h = 5;
49 console.log("g<h && g==4 is ", g<h && g==4 )
50 console.log("g>h && g==4 is ", g>h && g==4 )
51 console.log("g>h || g==4 is" , g>h || g==4)
52 console.log(!true)
53 console.log(!false)
54
55
56
```

Console

Arithmetic operators

```
a+b = 10
a-b = 4
a/b = 2.3333333333333335
a%b = 1
a*b = 21
a++ = 7
a-- = 8
a**b = 343
```

Assignment operators

```
c+=5 15
c-=5 10
c*=5 50
c/=5 10
c%=5 0
d**=5 32
```

comparison operator

```
e==f is : false
e!=f is : true
e===f is : false
e!==f is : true
e>f is : false
e<f is : true
e<=f is : true
e>=f is : false
e>f? e:f is : 9
```

logical operator

```
g<h && g==4 is true
g>h && g==4 is false
g>h || g==4 is true
false
true
Hint: hit control+c anytime to enter REPL.
>
```

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