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Comparison Operators

Comparison operators, just like python, are commonly used to compare variables to one another and perform general evaluations.

==	Equal to	x == y
!=	Not equal	x != y
>	Greater than	x > y
<	Less than	x < y
>=	Greater than or equal to	x >= y
<=	Less than or equal to	x <= y

Strings

Like most programming languages, string methods require the "to" prefix before the actual method. Input string to be methodized is to be placed in the ().

trim()	Returns a string with removed whitespaces
toLowercase()	Return a string converted to lowercase letters
toUpperCase()	Returns a string converted to uppercase letter
toLocaleLowerCase()	Return a string converted to lowercase letters using the host locale
toLocaleUpperCase()	Return a string converted to uppercase letters using the host locale
repeat()	Returns a new string with a number of copies of a string
replace()	Searches a string for a pattern and returns a string where the first match is replaced
substr()	Extract a number of characters from a spring from a start index (positions)
match()	Searches a string for a value or a regular expression and return the matches

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Number and Maths

Unlike most programming languages, javascript contains trigonometric and exponential functions in great variety.

abs()	Returns the absolute value of x
acos()	Returns the arccosine of x, in radians
asin()	Returns the arcsine of x, in radians
atan()	Returns the arctangent of x as a numeric value between -π/2 and π/2 radians
atan2(y,x)	Returns the arctangent of the quotient of its arguments
cbrt()	Returns the cubic root of x
ceil()	Returns x, rounded up to the nearest integer
cos()	Returns the cosine of x (x is in radians)
sin()	Returns the sine of x (x is in radians)
tan()	Returns the tangent of x (x is in radians)
E	Returns Euler's number (approx. 2.718)
exp()	Returns the value of E to the power of x
floor()	Returns x, rounded downwards to the nearest integer
LN10()	Returns the natural logarithm of 10 (approx 2.302)
LN2	Returns the natural logarithm of 2 (approx 0.693)
log()	Returns the natural logarithm of x
LOG10E	Returns the base-10 logarithm of E (approx 0.434)
LOG2E	Returns the base-2 logarithm of E (approx. 1.442)

max()	Returns the number with the highest value
min()	Returns the number with the lowest value
NaN	Means “Not a Number”
NEGATIVE_INFINITY	Returns negative infinity Is a number lower than any other number
POSITIVE_INFINITY	Returns positive infinity Is a number higher than any other number
PI	Returns π (approx 3.14)
pow(x,y)	Returns the value of x to the power of y
random()	Returns a random number
round()	Rounds x to the nearest integer
sqrt()	Returns the square root of x
SQRT1_2	Returns the square root of ½ (approx 0.707)
SQRT2	Returns the square root of 2
trunc()	Returns the integer part of a number (x)
toExponential()	Converts a number into an exponential notation
toFixed()	Converts a number to a string Then rounds the string to a specified number of decimals
toPrecision()	Returns a string representing this number to the specified precision

Objects

Object methods are similar to most programming languages.

toString()	Return a string or a string object as a string
valueOf()	Returns the primitive value of a string or a string object
keys()	Returns an Array iterator objects with the keys of an object

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Variables

Unlike most programming languages, variables and constants need to defined separately.

var a;	Variable
var b = “hello”	String
var c = “Hi” + “ ” + “Joe”	Concatenates variables, gives “Hi Joe”
var d 1 + 2 + “3”	Gives “33”
var e = [2,3,5,8]	Array
var f = true / false	Boolean
var g = function(){}	Function object
const = …	Declares constant

Booleans and If statements

Similar to most programming languages.

break	Exit a switch or a loop
class	Initiates a javascript class
const	Initiates a value that remains the same throughout the code
Continue	Breaks one iteration and continues the next iteration
while	Loops through a block of code as long as the specified condition is true
switch	Selects one of many code blocks to be executed
var	Initiates a value that can change throughout the code

Return	Stops the execution of a statement and returns the value
let	Declares a value that can either be a variable or a constant

Loops

More function-oriented than most programming languages.

Constructor	Return the function that created javascript boolean prototype
prototype	Allows you to add properties and method to the booleans prototype
toString()	Converts a booleans value to a string and return the result

Array

Array methods similar to most other programming languages.

concat()	Creates a new array by merging (concatenating) existing arrays
delete()	Deletes array elements However, using delete leaves undefined holes in the array Using pop() or shift() is a better option
join()	Joins all array elements into a string. Behaves just like toSTring(), but in addition, you can specify the separator
length()	Returns the size of an array
pop()	Removes the last element from an array
push()	Adds a new element to the end of an array
reverse()	Sorts an array in descending order
shift()	Removes the first array element and “shifts”

	all other elements to a lower index
unshift()	Adds a new element to an array at the beginning and “unshifts” older elements
slice()	Slices out a piece of an array
sort()	Sorts values as strings. However, if numbers are sorted as strings, sort() method will produce incorrect results
splice()	Adds new items to an array
toSource()	Represents the source code of an object