

## Global Functions (Top-Level Functions)

These are available globally without needing any object.

Function Name	Description
<code>eval()</code>	Executes a string of JavaScript code
<code>isFinite()</code>	Checks if a value is a finite number
<code>isNaN()</code>	Checks if a value is <code>NaN</code>
<code>parseFloat()</code>	Parses a string and returns a floating-point number
<code>parseInt()</code>	Parses a string and returns an integer
<code>decodeURI()</code>	Decodes a Uniform Resource Identifier (URI)
<code>decodeURIComponent()</code>	Decodes a URI component
<code>encodeURI()</code>	Encodes a URI
<code>encodeURIComponent()</code>	Encodes a URI component
<code>escape()</code>	Encodes a string (deprecated)
<code>unescape()</code>	Decodes a string (deprecated)

## Number Functions

Built-in methods attached to `Number` objects.

Function/Method	Description
<code>Number()</code>	Converts a value to a number
<code>toFixed()</code>	Formats number with fixed decimals
<code>toExponential() ( )</code>	Converts number to exponential notation
<code>toPrecision()</code>	Formats to specified precision
<code>isNaN()</code>	Checks if value is <code>NaN</code>
<code>isInteger()</code>	Checks if value is integer
<code>parseFloat()</code>	Parses and converts to float
<code>parseInt()</code>	Parses and converts to int

## String Functions

Methods used on string values.

Function/Method	Description
<code>charAt()</code>	Returns char at a specified index
<code>charCodeAt()</code>	Returns Unicode of char at index
<code>concat()</code>	Joins strings
<code>includes()</code>	Checks if string includes another
<code>indexOf()</code>	Returns index of first occurrence
<code>lastIndexOf()</code>	Last occurrence index
<code>replace()</code>	Replaces substring
<code>slice()</code>	Extracts part of string
<code>split()</code>	Splits string into array
<code>substring()</code>	Returns part of string
<code>toLowerCase()</code>	Converts to lowercase
<code>toUpperCase()</code>	Converts to uppercase
<code>trim()</code>	Removes whitespace

## Array Functions

Methods used on arrays.

Function/Method	Description
<code>push()</code>	Adds to end
<code>pop()</code>	Removes from end
<code>shift()</code>	Removes from beginning
<code>unshift()</code>	Adds to beginning
<code>splice()</code>	Adds/removes elements
<code>slice()</code>	Extracts part of array
<code>concat()</code>	Merges arrays
<code>join()</code>	Joins elements into string
<code>indexof()</code>	Finds index of item
<code>includes()</code>	Checks if item exists
<code>map()</code>	Creates new array with function
<code>filter()</code>	Filters elements
<code>reduce()</code>	Reduces array to single value
<code>forEach()</code>	Executes function on each element
<code>find()</code>	Returns first matching element
<code>sort()</code>	Sorts array
<code>reverse()</code>	Reverses array

## Math Functions

Use the `Math` object.

Function/Method	Description
<code>Math.abs()</code>	Absolute value
<code>Math.ceil()</code>	Rounds up
<code>Math.floor()</code>	Rounds down
<code>Math.round()</code>	Rounds to nearest integer
<code>Math.max()</code>	Max of numbers
<code>Math.min()</code>	Min of numbers
<code>Math.pow()</code>	Power ( $x^y$ )
<code>Math.sqrt()</code>	Square root
<code>Math.random()</code>	Random number (0 to 1)
<code>Math.trunc()</code>	Truncates decimal

## Date Functions

Use the `Date` object.

Function/Method	Description
<code>new Date()</code>	Creates date object
<code>getDate()</code>	Day of the month
<code>getDay()</code>	Day of week (0–6)
<code>getFullYear()</code>	Four-digit year
<code>getHours()</code>	Hour (0–23)
<code>getMinutes()</code>	Minutes (0–59)
<code>getSeconds()</code>	Seconds (0–59)
<code>getMilliseconds()</code>	Milliseconds
<code>getMonth()</code>	Month (0–11)
<code>getTime()</code>	Milliseconds since Jan 1, 1970
<code> setDate()</code>	Sets day of the month
<code>setMonth()</code>	Sets month
<code>setFullYear()</code>	Sets year
<code>toDateString()</code>	Converts to readable date string

## JSON Functions

Function/Method	Description
<code>JSON.stringify()</code>	Converts object to JSON string
<code>JSON.parse()</code>	Converts JSON string to object

## Console Functions

Function	Description
<code>console.log()</code>	Logs to console
<code>console.error()</code>	Logs error
<code>console.warn()</code>	Logs warning
<code>console.table()</code>	Logs data in table format
<code>console.time()</code>	Starts timer
<code>console.timeEnd()</code>	Ends timer