

Expressions, Operators, Statements

Expressions

Combination of explicit values, constants, variables, operators, and functions, which computes and then produces another value

$1 + 4;$

$3 \neq 1;$

Operators

Constructs which behave generally like functions, but which differ syntactically or semantically from usual functions

`1 + 3; // arithmetic`

`x || y; // logical`

`a & b; // bitwise`

Operators (Assignment)

- =
- +=
- /=
- ...

Comparison

- ==, !=
- ===, !==
- >, >=
- <, <=

Arithmetic

- +
- -
- *
- /
- %
- ++
- --

Logical

- `||`
- `&&`
- `!`

Bitwise

- `|` - and
- `&` - or
- `^` - xor
- `~` - not
- `<<` - left shift
- `>>` - right shift
- `>>>` - zero-fill right shift

String

- +

Special

- conditional // condition ? val1 : val2
- comma
- delete
- in
- instanceof
- new
- this
- typeof
- void

Statements

The smallest standalone element which expresses some action to be carried out

```
if ( ) { ... } else { ... }
```

```
try...catch
```

Functions

// Named function expression

```
var foo = function bar() { ... };
```

// Anonymous function expression

```
var foo = function () { ... };
```

// Immediately invoked function expression (IIFE)

```
(function () { ... })();
```

Block

{ ... }

Iterations

- do...while
- for
- for...in
- while

Task 1

Write a function which computes factorial of an argument.

Task 2

Write a function that checks whether a passed string is palindrome or not.

Task 3

Write a function to extract unique characters from a string.

Resources

- https://developer.mozilla.org/en-US/docs/Web/JavaScript/Guide/Expressions_and_Operators
- <https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Statements>
- <http://www.2ality.com/2012/09/expressions-vs-statements.html>