Expressions, Operators, Statements

Expressions

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

1 + 4;
3 != 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 () { ... };


// Immediatly 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