

## Answers to the questions of week 2 | Nadja van 't Hoff (11030720)

### 1. Explain the difference between the == operator and the === operator.

The == operator and the === operator are both comparison operators. When == is used, JavaScript uses automatic type conversions to be able to do the comparison. When using ===, true is only returned when the values are exactly equal, so === can be used when you don't want any automatic type conversions.

### 2. Explain what a closure is. (Note that JavaScript programs use closures very often.)

A closure is a function that "closes over" local variables, so closures give the possibility to make local variables out of global variables. Closures are often used within JavaScript programs, because local variables vanish when the function is done, because the function creates the variable every time it is called, and thus you don't have to worry about the lifetimes of variables.

### 3. Explain what higher order functions are.

In JavaScript, it is possible to give a function as an argument to another function – the higher-order function. It is also possible to return another function when calling a function – also a higher-order function. This enables the programmer to not only use values within functions, but to abstract over actions as well.

### 4. Explain what a query selector is and give an example line of JavaScript that uses a query selector.

A query selector searches and gives the first element in a document which has the property or properties defined in the selector. If no such elements are found, null is returned. An example is:

```
element = document.querySelector("p")
```

In this example, the first p-tag is returned.