

Homework questions:

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

With '==', Javascript is given permission to change the type of the values on either side of the '=='. For instance '0 == false' gets changed to 'false == false' (which is true). With '===', Javascript is not given permission to change the type of the values on either side of the '===' (so '0 === false', will not convert to 'false === false'). The '===' operator is useful when one wants to harness against unwanted type conversions.

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

This is a function inside (let's call this the 'inner function') of another function (let's call this the 'outer function'), which has access to the variables in the function itself, the local variables in the outer function, as well as the global variables. All this has to do with scope. If one was to create another function in the first inner function (let's call it the second inner function), this function would also be a closure and would be able to access it's own variables, the variables in the first inner function, the variables in the outer function and the global variables.

3. Explain what higher order functions are.

Higher order functions are functions that can take in as arguments other functions or that return functions that are inside the higher order function's code body. This is because in Javascript, functions are actually just variables, and variables can be returned as well as be used as arguments in functions. This can make for functions that can be used as arguments multiple time in different contexts/higher order functions and that functions can be passed around dynamically (by means of returning functions).

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

A query selector makes it able for a programmer to select certain specified elements that are present in a DOM object. A few things that can be selected on are HTML tags, HTML classes and HTML id's. One can also select on a combination of these things. For instance: An HTML tag that also has a class.

Example:

```
var para = document.getElementById("para");
```

This retrieves the information that is in the HTML tag with the unique ID 'para' and stores it in the variable 'para'.