

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

- The == operator does a type-converting comparison. This means that even if two values are of different type, say 'Null' and 'Undefined', if you compare them with == you would get true. Comparing them with === however would result in a false comparison, because === is a strict comparison. The two values being compared have to be exactly the same. Strings are strictly equal if they contain the same characters in the same order and are of the same length. Two numbers are equal if they have the same numerical value. Two Booleans have to be both true or both false and two objects have to refer to the same object to be true.

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

- A closure is a function that encloses one or more local variables so only that function can change it, but the variable(s) can still be accessed outside of the function. The variable is protected/private to the function but does not disappear after the function is called.

Explain what higher order functions are.

- Higher order functions are functions that take or return other functions as input/output, just like variables. This allows the creating or changing of functions with other functions.

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

- A query selector is a method that returns the first element specified by CSS selectors. You can use this to change html inside the element or request other info of the element. A line of code that uses a query selector is:

```
function count(selector) {  
    return document.querySelectorAll(selector).length;  
}
```