Answers week 2

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1 Explain the difference between == and ===

In javascript == will check if the two values are equal. The === operator will also check if it has the same type. Example:

```
1  0 == 0 //True
2  0 == False //True
3  0 === 0 //True
4  0 === False //False
```

2 Explain what a closure is

Javascript allows functions to be defined within other functions. This makes them able have private variables. Example:

```
1  function foo(input) {
2      var bar = input;
3      return function(baz) {
4          return bar + baz
5      }
6  }
7
8  var testFunc = foo(5);
9  console.log(testFunc(3)); // 5 + 3 = 8
```

In this example the function testFunc is able to reach a variable declared in its "parent" function.

3 Explain what higher order functions are

Higher order functions are functions that return different functions. Example:

```
1  var foo = function(bar, input) {
2      return function (input) {
3          return input.split(bar);
4      }
5  }
```

This function can be used to create a csv splitter, or any other sv splitter. Example:

```
1  var csvSplitter = foo(','); // function to split a string on every ','
2  var tsvSplitter = foo('\t'); // function to split a string on every tab
```

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

Query selectors are ways with which you you can select elements based on CSS selectors.
Example:

```
1 <div class='foo'><input name='number'></div>
```

```
1 <script>
2     var number = document.querySelector('div.foo input[name='number']');
3     // selects the first input named number in div class foo
4 </script>
```