

Data Processing
Week 3
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Explain the difference between the `==` operator and the `===` operator.

The `==` operator tests if two values are similar had they been of the same kind. So if they are of different kinds, JavaScript will convert one of the two values to the type of the other value, and then see if they are identical. The `===` operator does not do any conversion. It just compares two values and only returns `True` if they are completely identical, also in type.

Explain what a closure is.

Whenever a function is called, its local bindings are re-created. But a specific function call, including its local bindings, can be remembered. So if a function was created by another function, the second function will remember the environment in which the first function was called, by remembering the local bindings. This is closure. I think that this week we used this in the transformation functions for `x` and `y`.

Explain what higher order functions are.

Higher order functions are functions that make use of other, simpler functions

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

A query selector returns the first element in a document that matches the given selection criterium. In this week's assignment, I used:
`const canvas = document.getElementById("graph")`, which returns the element with the ID "graph".